

AGENDA

COMMITTEE ON EDUCATIONAL POLICY

Meeting: 9:30 a.m., Tuesday, May 21, 2019
Glenn S. Dumke Auditorium

Peter J. Taylor, Chair
Jane W. Carney, Vice Chair
Rebecca D. Eisen
Debra S. Farar
Wenda Fong
Emily Hinton
Lillian Kimbell
Thelma Meléndez de Santa Ana
John Nilon
Romey Sabalius
Christopher Steinhauser

- Consent** 1. Approval of Minutes of the Meeting of March 19, 2019, *Action*
- Discussion** 2. Graduate Education in the CSU, *Information*
3. Recognition of the S. D. Bechtel, Jr. Foundation's Investment in Educator Preparation, *Information*
4. California State University Institute for Palliative Care, *Information*

**MINUTES OF MEETING OF
COMMITTEE ON EDUCATIONAL POLICY**

**Trustees of The California State University
Office of the Chancellor
Glenn S. Dumke Conference Center
401 Golden Shore
Long Beach, California**

March 19-20, 2019

Members Present

Peter Taylor, Chair
Jane W. Carney, Vice Chair
Rebecca D. Eisen
Debra S. Farar
Wenda Fong
Emily Hinton
Lillian Kimbell
Thelma Meléndez de Santa Ana
John Nilon
J. Lawrence Norton
Romey Sabalius
Adam Day, Chairman of the Board
Timothy P. White, Chancellor

Trustee Taylor called the meeting to order.

Approval of Minutes

The minutes of January 22-23, 2018, were approved as submitted.

Academic Preparation

Loren J. Blanchard, executive vice chancellor for Academic and Student Affairs, introduced the information item by saying that the California State University (CSU) understands that the level of academic preparation is an important variable for student success. As a result, the CSU is working with PK-12 partners to ensure a greater percentage of CSU-bound students are academically prepared for college.

AMENDED

Ed. Pol.

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Dr. Blanchard acknowledged the number of public comments about the proposed requirement for four years of mathematics/quantitative reasoning during this consultative period. There are a broad number of stakeholders engaged in this proposal and he greatly appreciated the comments.

Dr. Blanchard invited James T. Minor, assistant vice chancellor and senior strategist, to explain about the impact of Executive Order 1110 and to share initial data on how this policy has improved outcomes for students who entered the CSU last fall.

Dr. Minor began the presentation by saying that prior to Executive Order 1110, the CSU sorted students into two groups: “ready” or “not ready,” based largely on standardized exams. Students in the “not ready” category were assigned to an Early Start Program in the summer before their first term.

Many of these students were also placed in stand-alone developmental education courses in their first year that did not earn them college credit. Students assigned to these courses were disproportionately Latino and African American. If students did not complete the developmental education requirements by the end of their first year, they were subject to being disenrolled from the university.

Effective fall 2018, the CSU refined its assessment and placement protocol—there are now four placement categories instead of two. Students required to attend Early Start will now earn college credit while strengthening their skills; and, today no CSU student is required to take a stand-alone developmental education course. Instead, they are offered college-level courses designed by faculty that embed support for students or offer additional instruction in coordination with the primary course.

Traditionally, fewer students arrive underprepared in written communication. This is, in part, due to the Expository Reading and Writing Course available to seniors at the majority of California high schools.

Focusing on mathematics/quantitative reasoning outcomes, the number of students who passed a lower-division mathematics course in fall 2018—following Executive Order 1110 implementation—is an eightfold increase from the previous year. Five percent of these students in last year’s cohort passed a college-level mathematics course in their first term compared to 46 percent a year later. It is also important to note that many of these college-level courses redesigned by faculty fulfilled the general education requirement for mathematics and quantitative reasoning.

Students are experiencing better outcomes in first-year mathematics and written communication courses compared to previous cohorts. Given that historically underserved students were disproportionately assigned to developmental education courses, these outcomes will have a significant impact on helping to close existing equity gaps.

Dr. Blanchard emphasized that the data represent just one term, and that students are the benefactors of these changes. Today, students have the opportunity to earn credit on their first day, and are given the support they need to succeed.

After the presentation, trustees expressed appreciation for this presentation and acknowledged the work on the part of faculty and leadership that was required to make the changes that led to the positive outcomes. Trustees also noted that in their campus visits they have seen the new courses/mathematics labs and found the faculty dedication to student success was impressive.

Several trustees expressed concerns regarding the potential fourth year of mathematics/quantitative reasoning requirement. Concerns that were raised included the possible negative impact on students and a lack of information and awareness among parents of students from historically underserved communities. Trustee Steinhauer, who is superintendent of Long Beach Unified School District, talked about the requirement of adding a year of mathematics/quantitative reasoning and how successful it has been for students in his district. *Trustee Abrego recommended that representative(s) from the Ed Trust West and Campaign for College Opportunity – who addressed the committee in public comment expressing their concerns on the potential negative impacts of a fourth year of quantitative reasoning – be provided an opportunity to share their data with the Board.*

Several trustees acknowledged an earlier public comment about the lack of African American students in the CSU. Chair Taylor and Dr. Blanchard discussed campus efforts to address this issue.

Student Financial Aid, part two

Loren J. Blanchard, executive vice chancellor for Academic and Student Affairs, introduced the information item by noting that financial support is one of the six pillars of Graduation Initiative 2025. The focus of this presentation was on two emerging opportunities that have the potential to enhance affordability for students:

- The reinstatement of year-round Pell grants and
- The proposed reforms for the state's Cal Grant program

Dean Kulju, director of student financial aid services and programs began the presentation by showing that the primary financial aid grant programs have increased in the last three years. Pell grants provide the greatest amount of grant funding, followed by the state's Cal Grant program, the CSU State University Grants (SUG) and the state's Middle-Class Scholarships. These programs provided more than \$2.4 billion in total grant assistance for 2017-18, accounting for more than half of the \$4.5 billion in total aid to all CSU students.

AMENDED

Ed. Pol.

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Recent changes in the Pell grant program have allowed students who are eligible for a Pell grant to receive more than one award in an academic year—and students can use it to enroll in summer courses. Data from campuses show that in summer 2017, just under 7,000 students received a summer Pell award, while in summer 2018, more than 21,000 students received an award.

The state Cal Grants are administered by the California Student Aid Commission (CSAC), which is external to the CSU. Recommendations from CSAC for reforms to the Cal Grant program include simplifying the state's existing aid programs; considering the total cost of attendance in the Cal Grant program; reinstating a formula for the maximum Cal Grant award available when attending private nonprofit institutions; and augmenting the Cal Grant program to support summer enrollment.

Mr. Kulju introduced Noelia Gonzalez, director of admissions and financial aid at CSU Stanislaus. Ms. Gonzalez described her campus's student population, noting that 86 percent receive financial aid or scholarships and 61 percent receive Pell Grants. She talked about the promotions on her campus to increase student awareness of year-round Pell grant availability, which resulted in an increase of more than 150 percent in students who received the summer Pell grant. She also sees promise in the proposed Cal Grant reforms, especially for older students and transfer students.

Dr. Blanchard concluded the presentation by stating that the CSU supports increasing access to financial aid for additional qualifying students through the changes to Pell Grants and proposed reforms to state aid programs so that students can succeed and graduate in a timely fashion.

Trustees had questions about whether financial aid covers room and board, Educational Opportunity Program grants and the particulars of the proposed Cal Grant reforms.

External Partnerships

Loren J. Blanchard introduced this presentation by saying that the CSU's external partnerships with local schools, faith-based organizations, community-based programs, government agencies and business communities across the state provide valuable learning opportunities for CSU students.

James T. Minor, assistant vice chancellor and senior strategist, began the presentation and offered a few examples of these partnerships: Super Sunday, where presidents and campus leaders visit churches to talk about the benefits of a college education and provide information about the application process; the Summer Algebra Institute for high school students to improve their math skills, prepare for college and visit CSU campuses; and the Feria de Educación in collaboration with Univision, which features an annual one-day event at CSU Northridge, Sacramento State and Fresno State that includes workshops and educational resources for students and families.

Judy Botelho, director of community engagement provided an overview of the impact of service learning on CSU students. She began by noting that through service learning, students are immersed in the issues and realities of communities. Research shows that benefits of service learning include integrative learning, academic relevance, increased multicultural understanding and civic development. Research also indicates that service learning may be beneficial for historically underserved students in STEM disciplines.

Key to the success of service learning is the CSU's partnerships with more than 5,000 community and faith-based organizations and government agencies. A short video was shown, produced by Fresno State students, about their positive experiences with service learning.

Dr. Blanchard concluded the presentation by emphasizing that the CSU's external partnerships positively influence college-going behavior, improve accessibility of local campuses and provide opportunities for CSU students to enrich local communities while also learning.

Trustees responded positively and commented that the great number of hours that CSU students dedicate to service learning is a significant contribution to California communities and that proposed increases in financial aid could result in more students contributing time to service learning. Trustee Steinhäuser added that in Long Beach service learning projects in his schools often acts as a pipeline for students to become educators.

Trustee Taylor adjourned the Committee on Educational Policy.

COMMITTEE ON EDUCATIONAL POLICY

Graduate Education in the CSU

Presentation By

Loren J. Blanchard
Executive Vice Chancellor
Academic and Student Affairs

Alison M. Wrynn
Interim Assistant Vice Chancellor
Academic Programs and Faculty Development

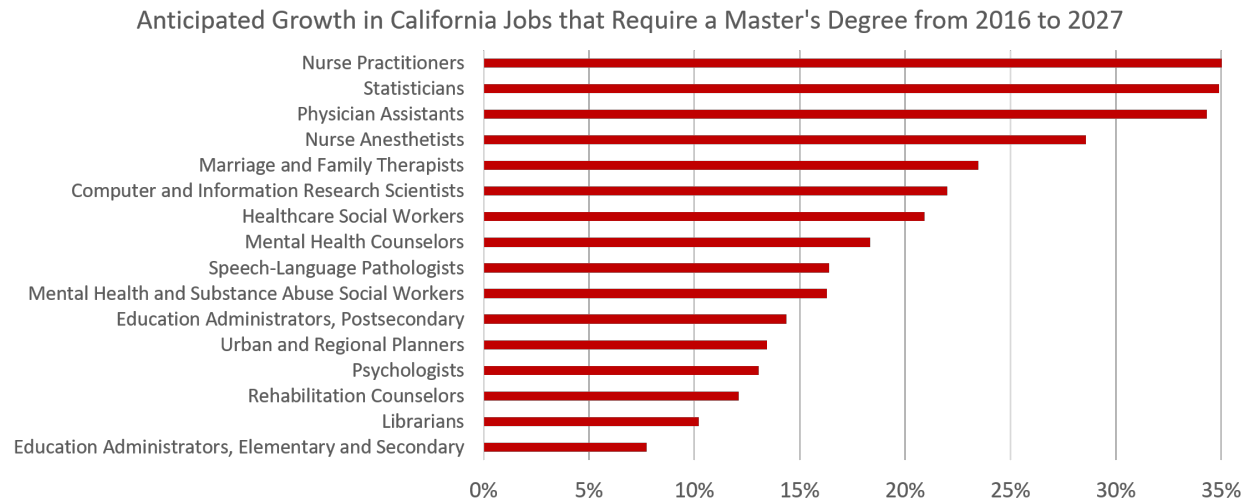
Summary

This information item focuses on the importance of graduate education to the California State University and the state of California. The Master Plan for Higher Education in California outlines the role of graduate education in the CSU; however, over the years this role has expanded and diversified. Graduate education is vital to the CSU as it supports regional and statewide workforce needs for the expanding California 21st century economy. The CSU's cost-effective, high-quality graduate programs provide opportunities for California's diverse population. Strong graduate programs also support undergraduate success and enhance CSU faculty work. Finally, robust master's degree programs in the CSU help prepare future faculty members for doctoral programs.

Background

Graduate programs are taking on larger significance in California and the nation. Many careers require an advanced degree, and graduate degrees are often required to keep knowledge, training and skills current. According to the U.S. Census Bureau, the average worker with a master's degree will net an additional \$12,000 or more per year than individuals with only a bachelor's degree. Those with professional or doctoral degrees, on average, earn even higher wages.

The following chart, based on data from the California Employment Development Department, demonstrates the anticipated growth in California jobs that require a master's degree.



Source: California Employment Development Department, Labor Market Information Division

CSU Graduate Programs

The CSU provides graduate programs in the areas of highest regional, state and national need, including each of the areas listed in the chart above. Graduate programs produce students with higher order training that is demanded for 21st century careers in California. In addition, those with graduate degrees afford other benefits to communities as civic leaders or by bringing special qualities to the arts, culture and general discourse of their communities.

There are two traditional categories of graduate degrees—master’s and doctoral. There are also numerous combined-degree and certificate or credential programs at many universities. Based on the Master Plan for Higher Education in California, the primary mission of the CSU is undergraduate education and graduate instruction through the master's degree. The CSU is also authorized to offer joint doctoral degrees with the University of California (UC), or with one or more independent institutions of higher education.

In addition to undergraduate instruction and graduate instruction at the master’s and doctoral levels, the CSU also enrolls a number of post-baccalaureate credential-seeking students. While not the focus of this information item, these post-baccalaureate students – the majority of whom are seeking a teaching credential – are critical to the CSU mission of meeting California’s statewide and regional workforce needs.

Doctoral Programs

Doctoral degrees, the highest earned terminal degree, can be professional or academic in nature. Academic doctoral degrees (e.g. Doctor of Philosophy) focus on advancing knowledge through original research in a given academic field. Professional doctoral degrees (e.g. Doctor of Education) stress the practical application of knowledge and skills. Doctorate degrees typically take three to six years to complete.

The CSU has sought legislative authority to offer independent professional doctoral degrees in areas where there is an identified workforce or accreditation need that may not be fulfilled through existing educational opportunities in California. Currently, the CSU is authorized to offer the following doctoral degrees:

- Doctor of Education (Ed.D.)
- Doctor of Nursing Practice (DNP);
- Doctor of Physical Therapy (DPT); and
- Doctor of Audiology (AuD).

Additionally, the CSU is currently seeking legislative authority to offer an independent Occupational Therapy Doctorate (OTD) to reflect a national movement by accrediting organizations to distinguish the doctoral level as the appropriate entry point for occupational therapists, in addition to the master's level.

Currently, there are 21 active joint Ph.D. programs and two joint Ed.D programs (that were established before the CSU was authorized to offer independent Ed.Ds). Joint doctoral programs are created when there is a demonstrated need for a degree that is not being met by an existing Ph.D program.

Campus	Partner	Degree	Discipline
Fullerton	UC Irvine	Ed.D	Educational Administration and Leadership
San Marcos	UC San Diego	Ed.D.	Educational Leadership
Long Beach	Claremont Graduate University	Ph.D.	Engineering and Industrial Applied Mathematics
Los Angeles	UC Los Angeles	Ph.D.	Special Education
Sacramento	UC Santa Barbara	Ph.D.	Public History
San Diego	UC Santa Barbara	Ph.D.	Geography
San Diego	Claremont Graduate University	Ph.D.	Education
San Diego	UC San Diego	Ph.D.	Bioengineering
San Diego	UC San Diego	Ph.D.	Electrical and Computer Engineering
San Diego	UC San Diego	Ph.D.	Mechanical and Aerospace Engineering
San Diego	UC San Diego	Ph.D.	Structural Engineering
San Diego	UC San Diego	Ph.D.	Interdisciplinary Substance Use Studies

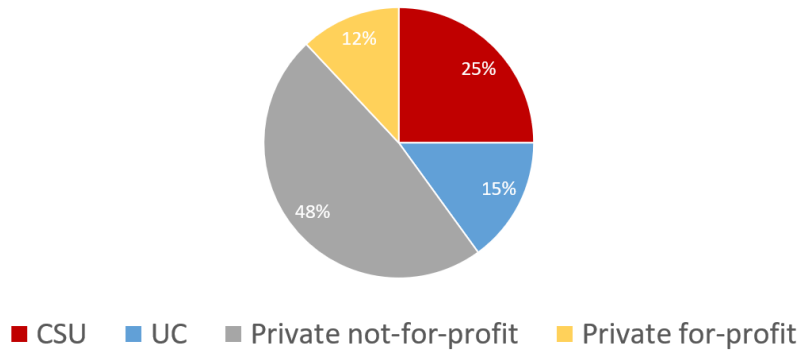
San Diego	UC San Diego	Ph.D.	Language and Communicative Disorders
San Diego	UC San Diego	Ph.D.	Public Health
San Diego	UC San Diego	Ph.D.	Biology
San Diego	UC San Diego	Ph.D.	Chemistry
San Diego	UC San Diego	Ph.D.	Clinical Psychology
San Diego	UC Irvine	Ph.D.	Computational Science
San Diego	UC Davis	Ph.D.	Ecology
San Diego	UC Riverside	Ph.D.	Evolutionary Biology
San Diego	UC San Diego/Scripps Institute of Oceanography	Ph.D.	Geophysics
San Diego	UC San Diego	Ph.D.	Mathematics and Science Education
San Francisco	UC Berkeley	Ph.D.	Education

Master's Programs

Approximately 97 percent of graduate degrees earned in the CSU are master's degrees. Master's degree programs offered can be professional or academic in nature and are obtainable in a wide range of fields. Academic degrees (e.g. Master of Science; Master of Arts) are designed for intellectual growth and are sometimes a prerequisite for doctoral work within a given field. Professional degrees (e.g. Master of Business Administration) are designed for employment or advancement within a given career or field of study. Master's degrees typically take two to three years to complete.

As shown in the chart below, the CSU prepares 25 percent of the master's degree students in California, while the UC prepares 15 percent and private not-for-profit and for-profit institutions award the remaining master's degrees. More than half of the master's students in the CSU completed their undergraduate degree at one of the university's 23 campuses.

Master's Degrees Awarded in California 2016-2017

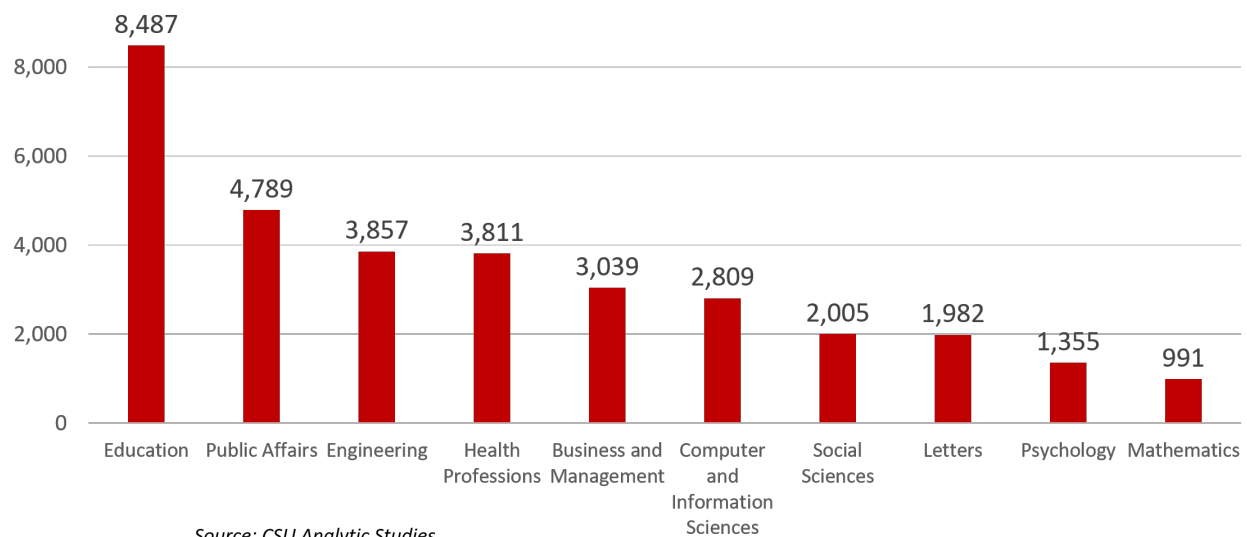


Source: IPEDS CY 2016-17 California Graduate Degrees Granted, Final Data

The CSU currently offers 25 distinct types of master's degrees:

- Master of Arts (MA)
- Master of Science (MS)
- Master of Music (MM)
- Master of Agricultural Education (MAgEd)
- Master of Archives and Records Administration (MARA)
- Master of Architecture (MArch)
- Master of Arts in Teaching (MAT)
- Master's in Business Administration (MBA)
- Master of Biotechnology (MBt)
- Master of City Planning (MCP)
- Master of City and Regional Planning (MCRP)
- Master of Engineering (MEng)
- Master of Fine Arts (MFA)
- Master of Knowledge Management (MKM)
- Master of Landscape Architecture (MLA)
- Master of Library and Information Science (MLIS)
- Master of Public Administration (MPA)
- Master of Public Health (MPH)
- Master of Public Policy (MPP)
- Master of Public Policy and Administration (MPPA)
- Master of Social Work (MSW)
- Master of Urban Planning (MUP)
- Master of Urban and Regional Planning (MURP)
- Master of Interior Architecture (MIA)
- Master of Professional Accountancy (MPACC)

Within these 25 distinct master's degrees, there are 1,632 individual master's degree programs – and options within those programs – across the 23 CSU campuses. The top ten enrolled master's degree disciplines in the CSU are shown below. The discipline with the highest enrollment is education, demonstrating the CSU's role in educating the future teachers and educational leaders for the state.



Graduate education in the CSU has adapted to the needs of 21st century learners and working professionals. Seventeen of the 23 campuses currently offer master's programs at additional locations beyond the main campus. These locations include branch and satellite campuses in schools, school district administrative offices, hospitals, downtown locations and industry sites. The CSU has 74 sites in addition to the 23 campuses. At these 74 sites, a total of 111 master's degree programs are offered.

Additionally, the CSU also offers 95 online master's programs. The table below shows the subject areas in which online master's programs are offered in the CSU.

Discipline	Number of Online Master's Programs
Business and Management	27
Education	19
Health Professions	15
Public Affairs	15
Computer and Information Sciences	4
Engineering	4
Interdisciplinary Studies	4
Letters	2
Social Sciences	2
Agriculture and Natural Resources	1

Quality Assurance

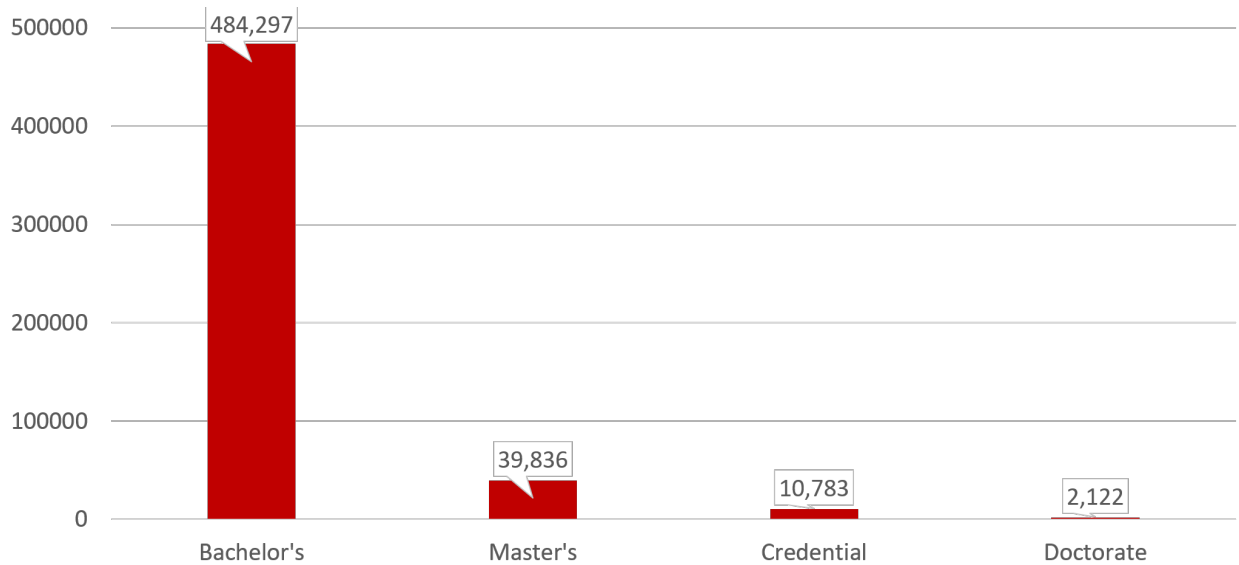
Program quality is of primary importance for CSU graduate programs. Degree programs that are eligible for accreditation from a national accrediting body are expected to seek such accreditation. All graduate degree programs undergo regularly scheduled campus-based program review, typically every five years, and are assessed by faculty on a continual basis.

Graduate programs at CSU campuses are among the best in the nation according to *U.S. News & World Report* rankings released in 2019. The publication recognized 82 graduate programs from 18 CSU campuses in its 2019 rankings. Programs at six campuses — Fresno, Fullerton, Los Angeles, San Diego, San Francisco and San José — were ranked among the top 50 nationally in areas including psychology, nursing, occupational therapy and rehabilitation counseling. The rankings are a testament to the CSU's high-quality graduate programs, which integrate specialized training in the theory, research methodologies and critical analyses within a given discipline.

CSU Enrollment (Fall 2017)

Reflective of the CSU mission, the vast majority of students enrolled in fall 2017 were enrolled as undergraduates. As shown in the graph below, 484,297 students were enrolled in a baccalaureate program, 39,836 were enrolled in a master's program and 2,122 were enrolled in a doctoral program.

In addition, 10,783 post-baccalaureate credential-seeking students were enrolled at the CSU in fall 2017. These students may also be reflected in the enrollment count for the master's degrees, depending if they were simultaneously enrolled in a CSU graduate program.

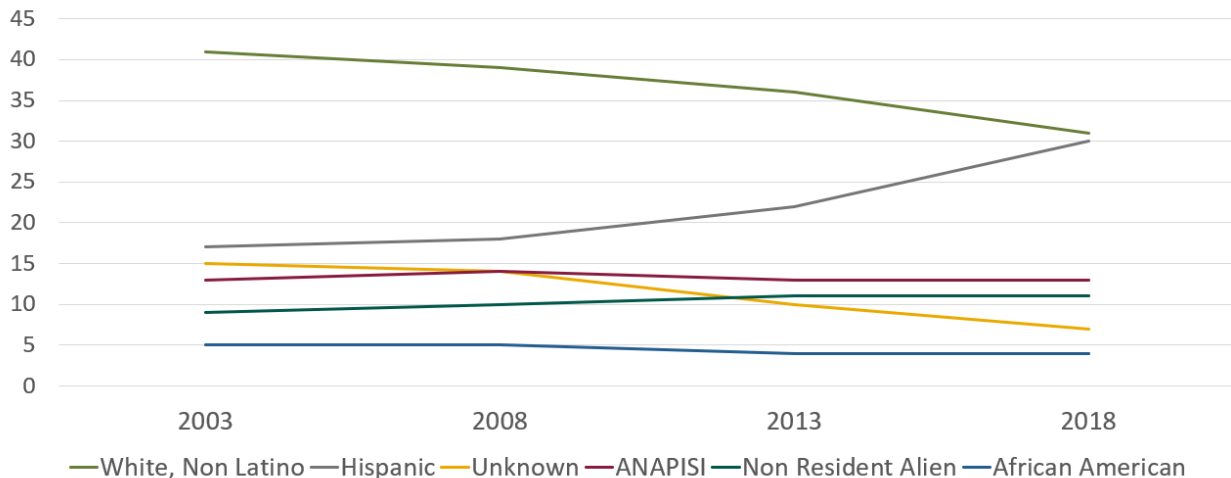


Source: CSU Analytic Studies

Student Diversity in CSU Graduate Programs

As shown in the graph below, during the past 15 years, the percentage of the enrolled graduate student population that identified as “Hispanic” has grown from 17 percent in 2003 to nearly 30 percent in 2018. The enrollment of students who identify as “White, Non-Latino” has decreased from just over 40 percent to close to 30 percent. Other ethnicity groups have largely remained steady.

Graduate Enrollment by Ethnicity Over Time



Source: CSU Analytic Studies

Future Faculty Programs

In addition to addressing current and future workforce needs, CSU graduate programs are also incubators for future faculty, many of whom return to teach in the CSU. Twenty nine percent of CSU lecturers completed a master's degree from the university.

The CSU Pre-Doctoral Program and the Chancellor's Doctoral Incentive Program provide support to graduate and undergraduate students as they prepare for and undertake doctoral education.

California Pre-Doctoral Program

The California Pre-Doctoral Program began in 1989. It is designed to increase the pool of potential CSU faculty by supporting the doctoral aspirations of CSU students who have experienced economic and educational disadvantages. All matriculated students enrolled on a CSU campus are eligible to participate. Current CSU faculty members are an integral component of this program as they work closely with applicants to prepare them for graduate studies.

In 2018-19, the California Pre-Doctoral Program awarded funds to approximately 75 juniors, seniors and graduate students in the CSU. These funds enable current students to explore and prepare to succeed in doctoral programs in their chosen field of study. Selected applicants are designated a "Sally Casanova Pre-Doctoral Scholar" and work closely with a CSU faculty mentor to develop an overall plan that leads to enrollment in a doctoral program. Plans are tailored to the specific goals and career objectives of the student.

CSU Chancellor's Doctoral Incentive Program

The CSU Chancellor's Doctoral Incentive Program (CDIP) is the largest program of its kind in the U.S. Established by three CSU presidents in 1987, CDIP prepares promising doctoral students for CSU faculty positions by providing financial support, mentorship by CSU faculty and professional development and grant resources. The goal of CDIP is to increase the number of faculty with the qualifications, motivation and skills needed to teach the diverse students of the CSU.

CDIP offers a subsidized educational loan of up to \$30,000 with a potential for loan cancellation if the student, upon completion of their doctorate, becomes a CSU faculty member.

One important feature of CDIP is mentoring. Every applicant to the program identifies a tenured or tenure-track CSU faculty member to serve as a mentor throughout the scholar's doctoral program as well as in the scholar's search for a faculty position. Together, the applicant and mentor develop a comprehensive plan, called the Collaborative Plan of Support, which details how they will work together to foster the scholar's development in the three components of faculty life: teaching, research and service.

Finally, through CDIP grants, the CSU supports the collaborative activities of CDIP scholars and their faculty members. Scholars have the opportunity to use grant funds to further their doctoral training and to attend professional conferences and workshops. Through research and scholarly attendance at conferences, scholars can enhance their professional development.

Conclusion

Graduate education is integral to the CSU mission of preparing students to be successful in their future workforce and academic endeavors. By offering doctoral and master's programs in fields of high workforce demand, the CSU is developing the diverse workforce California needs for the future.

COMMITTEE ON EDUCATIONAL POLICY

Recognition of the S. D. Bechtel, Jr. Foundation's Investment in Educator Preparation

Presentation By

Marquita Grenot-Scheyer
Assistant Vice Chancellor
Educator Preparation & Public School Programs

Susan Harvey
Program Director
S. D. Bechtel, Jr. Foundation

Macy Parker
Senior Program Officer
S. D. Bechtel, Jr. Foundation

Nicholas Kertz
Teacher
Starr King Elementary School

Summary

The S. D. Bechtel, Jr. Foundation works and makes philanthropic investments in support of a productive, vibrant and sustainable California that is a model of success and a source of innovation. The foundation's work is pursued through two programs: the Environment Program and the Education Program.

As part of its education program, the S. D. Bechtel, Jr. Foundation has made grants to the California State University (CSU) Office of the Chancellor and campuses over the past decade totaling more than \$20 million. These funds have helped transform teacher preparation throughout the CSU, particularly through the New Generation of Educators Initiative.

This information item details the investments by the Bechtel Foundation in the California State University teacher education preparation initiatives and celebrates the impact those investments have had on CSU students. It is also an opportunity for the Bechtel Foundation to announce a new philanthropic investment in the university, the CSU Residency Year Service Scholarship Program.

CSU Teacher Preparation

The CSU prepares half of California's teachers and approximately 10 percent of the nation's teachers. Currently, every CSU campus except the California State University Maritime Academy has a teacher preparation program on its campus, while CalStateTEACH offers a systemwide online elementary credential program.

In 2017-18, nearly 7,800 new elementary, secondary and special education teachers completed coursework in the CSU to earn a credential. Moreover, the CSU is preparing teachers in the fields where they are needed most. Over the past seven years, the CSU has enrolled more than 8,400 students in bilingual instruction programs. Over the past six years, the CSU has graduated approximately 10,000 special education teachers.

S. D. Bechtel, Jr. Foundation

Stephen D. Bechtel, Jr. is the former chairman and chief executive officer of the Bechtel Corporation, a global engineering and construction company. In 1957, he created the S. D. Bechtel, Jr. Foundation as a personal commitment to the prosperity he envisioned and desired for California.

Mr. Bechtel directed the foundation's primary investments toward STEM (science, technology, engineering and mathematics) education and the environment. The Education Program focuses on helping young people develop the knowledge, skills and character to explore and understand the world around them, growing into caring, informed and productive adults. The foundation supports students and educators in STEM education and character development and encourages effective education policy.

Bechtel Foundation Support for CSU Teacher Preparation

Over the past decade, the S. D. Bechtel, Jr. Foundation has made grants to the CSU Office of the Chancellor and campuses totaling more than \$20 million. Funding has supported a variety of initiatives, including STEM (science, technology, engineering, mathematics) K-8 teacher preparation projects; programs supporting historically underserved students' pursuit of engineering degrees; the incorporation of engineering in elementary school curriculum and campus centers for science, mathematics and engineering.

Two of the largest programs supported by the S. D. Bechtel, Jr. Foundation are the Science Teacher Researcher Program and the New Generation of Educators Initiative.

Science Teacher and Researcher Program

The S. D. Bechtel Jr., Foundation has been a significant funding partner in the Science Teacher and Researcher (STAR) Program, which was founded and implemented at California Polytechnic State University, San Luis Obispo, on behalf of the CSU system. STAR seeks to develop a new generation of science and mathematics teachers equipped with the skills to inspire more students to choose career paths in science, technology, engineering and mathematics (STEM).

STAR has three main goals for addressing the shortfall of science and mathematics teachers:

- Enhanced recruitment of high-quality teachers;
- Improved teacher education and professional development; and
- Improved teacher retention rates.

The STAR program seeks to achieve these goals by:

- Providing future science and mathematics teachers with the experience of a scientific research or engineering design experience in a national laboratory;
- Fostering the development of inquiry-based science teaching and learning strategies;
- Supporting aspiring and early career teachers in the early years of their development; and
- Creating a sense of belonging to a larger community of scientists, teachers and educators.

Upper-division science, mathematics and engineering majors, teaching credential students planning to teach secondary school science or mathematics and early career science and mathematics teachers are eligible to apply for STAR. Selected applicants are placed in a research laboratory for an eight- to ten-week research internship that is interspersed with weekly education seminars and workshops.

New Generation of Educators Initiative

The largest initiative supported by the S. D. Bechtel, Jr. Foundation is the New Generation of Educators Initiative (NGEI), for which the foundation awarded approximately \$15 million to the CSU and its campuses.

Between 2014 and 2016, an initial set of 12 campuses began initiatives aimed at creating partnerships that advanced collaboration between the campus and the local school districts they serve. In 2016, 10 of these campuses – plus one additional campus – received grants to continue the NGEI vision. These partnerships are listed below.

CSU Campus	Partner(s)
CSU Bakersfield	Bakersfield City School District
CSU Channel Islands	University Preparation Charter School Ocean View School District
CSU Chico	Chico Unified School District
CSU Dominguez Hills	Los Angeles Unified School District – Local District South
CSU Fresno	Fresno Unified School District Sanger Unified School District Central Unified School District
CSU Fullerton	Anaheim Union High School District Orange Unified School District Placentia-Yorba Linda Unified School District
CSU Long Beach	Long Beach Unified School District
CSU Monterey Bay	Monterey Peninsula Unified School District
CSU Sacramento	Sacramento City Unified School District
Cal Poly San Luis Obispo	Lucia Mar Unified School District
CSU Stanislaus	Ceres Unified School District Turlock Unified School District

Recently, the foundation made additional grants to 12 more campuses, resulting in a clinical teacher preparation reform that is systemwide and includes significant attention to diversity, equity and inclusion in teacher preparation.

Under NGEI, the partnerships between CSU campuses and the school districts they serve are being significantly strengthened. Campuses and districts are working together to design opportunities for hands-on practice for CSU teacher candidates that go far beyond the few weeks that are typical of student teaching. Candidates in CSU teacher education programs are increasingly encountering a model akin to clinical training in medicine, where a year-long “clinical placement” allows them to see the full arc of a school year and provides multiple opportunities to practice the real work of teaching in real schools. The experience received as part of this NGEI “residency” makes these candidates highly valued in the job market.

The NGEI partnerships are focused on goals and strategies that fit local contexts. For example, partners are enriching or expanding teacher residency programs; creating pathways for candidates to gain relevant experience and ultimately join the faculty in schools facing teacher shortages; creating curricula that integrates STEM into K-8 learning and teacher preparation; and ensuring that candidates have meaningful co-teaching experiences.

While the partnerships are based on local needs and contexts, all partnerships focus on five key transformational elements of teacher preparation:

- **Forming deep partnerships between campuses and districts** that begin with a shared vision of effective instruction and take form through a learning continuum that spans pre-service through induction;
- **Defining the skills, knowledge, and dispositions** that are priorities for teacher preparation, based on state standards as well as the needs of students and their districts;
- **Preparing through doing in school sites**, with high-quality opportunities to enact priority skills, knowledge, and dispositions in tandem with support from thoroughly prepared teacher mentors and coaches;
- **Creating a culture of feedback for candidates** that is data-driven, specific, and actionable—with ongoing, calibrated inputs from Master teachers, CSU faculty, supervisors, and teacher mentors; and
- **Using data** to measure progress toward proficiency as well as gaps in skills, knowledge, and dispositions; providing timely information to fuel continuous improvement for candidates as well as preparation programs.

The reports of the original 11 NGEI campuses from September 2017, show major impacts. Many have built residency programs—some in partnership with rural, others with urban districts. They have focused on STEM education in grades TK-8. These residencies are like teaching hospitals, providing teacher candidates with mentors who assist them to effectively design and implement standards-aligned instruction through a supportive, co-teaching clinical experience. Three campuses are now moving from initial district partnerships to include additional districts. Initial partnerships now include district support for program coordinators. Other campuses are including professional development school models and instructional rounds as well as expanded roles for school site teachers.

CSU Residency Year Service Scholarship Program

The S. D. Bechtel, Jr. Foundation recently announced a new scholarship program, the CSU Residency Year Service Scholarship Program, for aspiring teachers, focused on quality residencies, and anchored in equity. This scholarship is being initiated with a \$3.1 million grant from the foundation, which will provide \$10,000 to 300 aspiring teacher residents. Teacher candidates eligible for the scholarship will:

- Have demonstrated financial need;
- Make a commitment to teach in a high need school for two years;
- Demonstrate a belief in the ability of all children to succeed and in the centrality of a teacher's role in this success; and
- Have an interest in working with English Learners, earning a bilingual credential, working in urban and/or high need schools or supporting students with special needs.

Additional Funding Sources for Teacher Education

In addition to funding from the S. D. Bechtel, Jr. Foundation there are several sources of state funding for educator preparation.

Integrated Teacher Education Programs

In 2016, the budget act (SB 828) included additional funding for Integrated Teacher Education Programs (ITEPs), which allow students the opportunity to earn both a Bachelor of Arts degree and a teaching credential at the same time, in four calendar years. The legislature allocated \$10 million to fund 40 grants to be awarded to higher education institutions, each at \$250,000. These grants are being used to develop four-year ITEPs, particularly in special education, mathematics, science and bilingual education.

CSU campuses were successful in both the first and second rounds of funding. 26 grants were awarded to 19 CSU campuses for new integrated programs, with a total of \$6.2 million awarded to the CSU. Faculty have begun work on developing these programs and it is expected that an average of 20 students will enroll in each of the 26 new programs in the initial year. One thousand new teacher candidates are projected to enroll in these programs annually by 2019-20.

Teacher Residency Programs

The 2018-19 state budget included funding aimed at supporting the development and implementation of teacher residency programs. A total of \$75 million was provided for competitive grants for local education agencies, with \$50 million allocated for the preparation of special education residents and \$25 million allocated for the preparation of STEM and/or bilingual residents.

Conclusion

Over the past decade, the S. D. Bechtel, Jr. Foundation has invested more than \$20 million in the CSU. These funds have helped transform teacher education on CSU campuses, supporting efforts to prepare California's next generation of educators.

In 2009, the Bechtel Foundation made the determination to invest all of its assets – spend down – by 2020, in order to spur significant progress on the issues facing California. As the foundation's time winds down, this information item is an opportunity to celebrate their partnership with the CSU and the numerous teacher candidates who have benefited from their support.

COMMITTEE ON EDUCATIONAL POLICY

California State University Institute for Palliative Care

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Summary

The California State University currently has nine multi-campus collaborations, also known as affinity groups, which conduct research on a breadth of topics, including agriculture, biotechnology to desert and ocean life. One such group is the CSU Institute for Palliative Care, housed at CSU San Marcos in partnership with CSU Fresno. This information item provides an overview of palliative care and the professional training offered by the institute.

Palliative Care

Approximately half of all Americans live with at least one chronic illness and that number is projected to increase by more than one percent per year by 2030. In California alone, 21.6 million individuals had at least one chronic disease in 2015. This represents 55 percent of the state's population, and more than one-third of this group is living with multiple chronic conditions. Typical chronic diseases include chronic pain, hypertension, arthritis, diabetes, and heart disease.

Palliative care provides individuals who live with a serious or chronic illness care – from the time of diagnosis throughout the course of treatment – that optimizes quality of life by anticipating, preventing, and managing suffering. It is applicable early in the course of illness and in conjunction with other therapies that are intended to cure an illness or prolong life, such as chemotherapy, radiation therapy and surgical procedures. Attributes of palliative care include:

- Providing relief from pain and other symptoms;
- Enhancing quality of life;
- Integrating the psychological and spiritual aspects of patient care;
- Offering a support system to help patients live as actively as possible throughout the course of an illness; and
- Offering a support system to help loved ones cope with stress during the patients' illness and in their own bereavement.

Palliative care is provided by interdisciplinary teams comprised of physicians, nurses, social workers and spiritual counselors as well as pharmacists and other health professionals according to the needs of the patient and family.

From 2000 to 2016, the number of hospitals offering palliative care nationally tripled to more than 1,800. However, access to palliative care is still uneven. For instance, of California's 356 acute care hospitals surveyed in 2017 by the California Health Care Foundation, approximately 57 percent had palliative care teams in place, reaching about 52 percent of the patients in need of palliative care services. Community-based palliative care services in the state doubled between 2014 and 2017, totaling 380 programs, but these services still are only reaching about 40 percent of patients in need. The picture nationally is much the same: most major urban areas offer many services and choices; whereas rural areas offer very few.

CSU Institute for Palliative Care

In 2012, an aging population and a lack of quality care for those with serious and chronic illnesses prompted then-CSU Trustee Roberta Achtenberg to partner with California State University San Marcos President Karen Haynes to create the CSU Institute of Palliative Care. The institute has three goals: (1) Preparing the current healthcare workforce; (2) Preparing the future palliative care workforce; and (3) Building community awareness and advocacy.

The CSU Institute for Palliative Care is the first, and only, statewide effort focused on palliative care workforce development and community education. Since 2012, the institute has grown and now comprises 15 staff members, 17 National Advisory Board members, 150 contract subject matter experts and instructors, serving 300 health care organizations and more than 11,000 participants.

The institute offers instructor-led and self-paced online learning to individuals and organizations. Currently there are 142 courses available. Participants have the ability to earn certificates of completion, which can significantly contribute to exam- or portfolio-based professional certification. The institute also offers continuing education hours for healthcare professionals across many disciplines.

The CSU Institute for Palliative Care is funded through program revenue, foundation grants, individual gifts and an allocation from the Office of the Chancellor (approximately 9 percent of the total budget) to support the administration of the institute. Since its founding, program revenue for the institute has grown from less than \$200,000 in 2012-13 to approximately \$1.6 million in 2017-18.

Conclusion

The CSU Institute for Palliative Care is a national leader, providing training and continuing education in an area of growing workforce need. As the institute looks to the future, pending federal legislation – the Palliative Care and Hospice Education and Training Act – could provide additional opportunities for growth and expansion, enabling the institute and the California State University to continue providing the workforce needed to support individuals living with chronic, progressive or terminal illness.