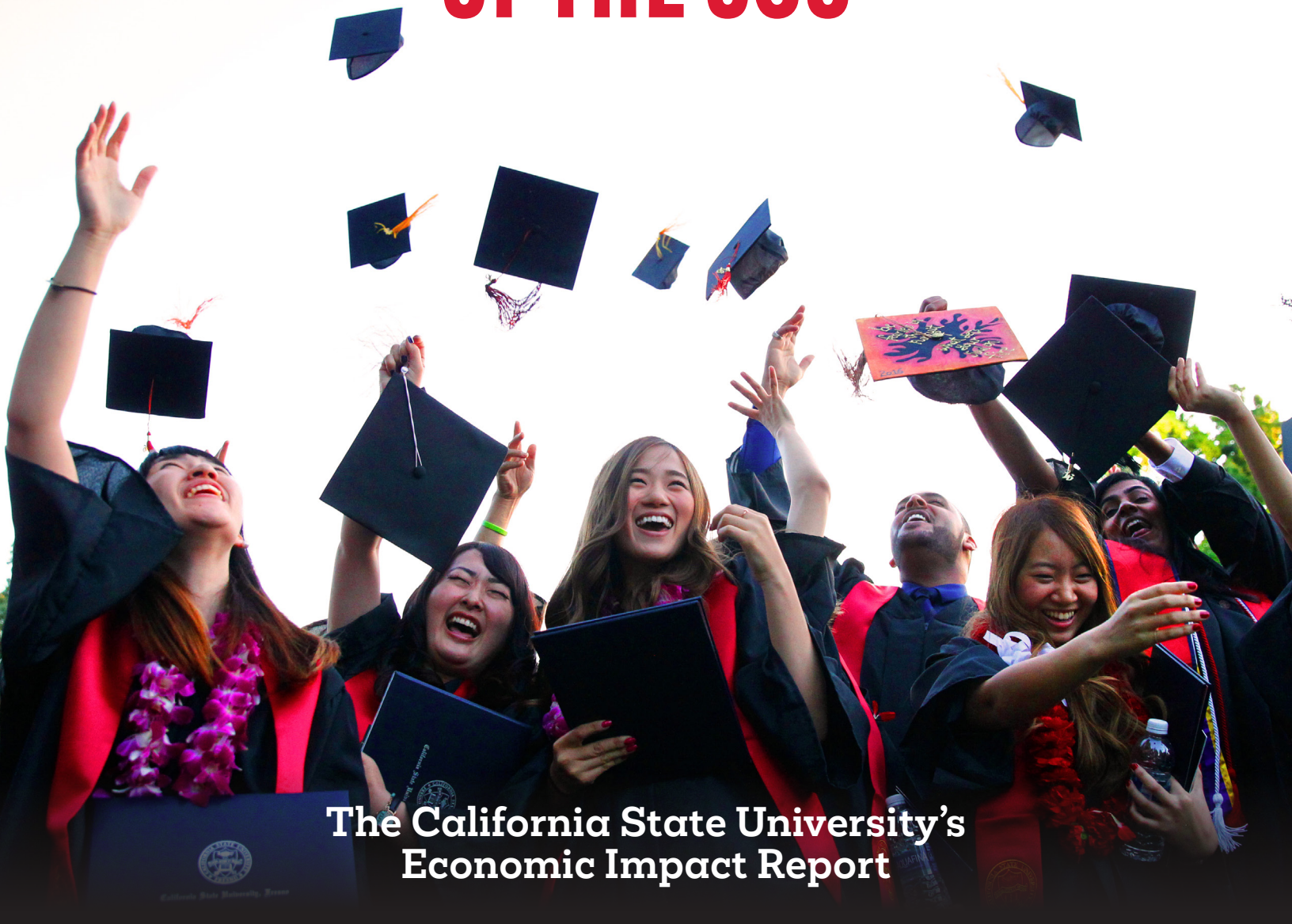


Moving **CALIFORNIA** Forward: **THE ECONOMIC POWER OF THE CSU**



The California State University's Economic Impact Report

Prepared For
Office of the Chancellor
The California State University

Submitted By
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Fairfax, VA 22031

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A MESSAGE FROM THE CHANCELLOR

It is my life's highest professional honor and greatest responsibility to lead the nation's largest, most diverse and most impactful four-year public university system—the California State University. The CSU's mission is to transform lives, uplift families and communities, and to drive California to its brightest future. Today, that mission has never been more essential. And it's never been more complex.

To meet the moment and build a stronger, more responsive and more sustainable CSU, we've embarked upon a bold and innovative systemwide strategic plan: CSU Forward. CSU Forward recognizes that, for the CSU—and the students and state we serve—to reach our greatest potential, we must clearly demonstrate and communicate the CSU's value to all our stakeholders. This economic impact report is a critically important tool in advancing that priority.

Of course, some of the CSU's value is intuitive. College graduates earn more—over \$1 million in additional lifetime earnings compared to those with only a high school degree. They have better access to health insurance and retirement plans, and experience lower rates of unemployment during economic downturns.

Other benefits are less obvious. College graduates volunteer more, vote more and are more likely to donate to charity and assume leadership roles in their communities. They contribute more in taxes and rely less on public services. They even enjoy better health outcomes and report higher levels of happiness.

And, with the CSU's extraordinary scope, there are far broader regional and statewide impacts that help power California's economy—the world's fourth largest. These include billions of dollars of revenue generated by industry activity and tax revenue, and more than 200,000 jobs supported. The CSU is the leading pipeline for California's



diverse and highly educated workforce, which is the Golden State's greatest competitive advantage. In fact, one out of every 10 employees in California is a CSU graduate. And the CSU's applied research programs provide innovative solutions to pressing societal, economic and environmental challenges across every region of the state.

The breadth and scale of these broader impacts are massive—and they are thoughtfully discussed and clearly quantified in this extensive report. I encourage you to review it and to read carefully those areas in which you have a special interest. When you do, I am confident you will agree: Financial support of the California State University is not an expenditure, but a wise investment—in our students and the communities and state we serve. So, I ask you for your support—your investment—and invite you to join us as we lead the CSU, and California, forward!

Warmly,

A handwritten signature in black ink that reads "Mildred García". The signature is written in a cursive, flowing style.

Mildred García, Ed.D.
Chancellor
The California State University

EXECUTIVE SUMMARY



As the nation's largest and most diverse four-year public university system, the California State University (CSU) is key to California's prosperity, vitality and future. With campuses stretching from Humboldt in the north to San Diego in the south, the CSU is woven into the economic and social fabric of the state. Each year, more than 450,000 students enroll in CSU programs, and over 125,000 degrees are awarded in disciplines directly tied to California's evolving workforce needs.

The CSU's scale and reach are unparalleled. Its 63,000 faculty and staff form a powerful educational infrastructure, while its 4.3 million alumni create an impressive network of leaders, innovators and public servants. Each CSU campus also serves as an anchor institution for its local community by advancing regional growth, equity and resilience through teaching, service and applied research.

The impacts of the CSU are both transformative and measurable. The system generates billions of dollars in annual economic activity and tax revenue, supports hundreds of thousands of jobs statewide and provides a pathway to social mobility for students from all backgrounds. At the same time, CSU research and partnerships tackle some of California's most urgent challenges, from climate resilience and wildfire prevention to health care access and teacher shortages.

This report highlights the breadth and depth of the CSU's contributions across four dimensions: Economic Impacts, Student Impacts, Industry Workforce Impacts and Societal Impacts. Together, they illustrate how the CSU continues to be a powerful engine of opportunity in California, delivering a strong and lasting return on investment for the people of California.

ECONOMIC IMPACTS

The CSU’s profound economic value to California is measured by the industry activity, tax revenue and the employment that it generates. Driven by a combination of the university’s capital, operational and auxiliary expenditures; student spending on goods and services; and the value of alumni earnings that are attributable to their CSU degrees, the CSU delivers a robust return on the state’s investment. The \$20 billion spend by the CSU and its students during the 2023-24 academic year generated \$31.6 billion in industry activity¹, \$2.3 billion in state and local tax revenue, and supported² 210,800 jobs in California.

The CSU is an excellent public investment: For every dollar that the system receives from the state of California, it generates \$7.69 in statewide industry activity. Moreover, when factoring in CSU alumni spending of incremental earnings,³ the return on investment grows to an impressive \$35.53.

In addition, CSU campuses significantly boost regional economies, because of the goods and services they purchase from their communities. This report includes sections that break down the CSU’s economic impact in eight California regions. Table ES-1 summarizes the contributions related to each of these regions, demonstrating that CSU benefits reach every corner of the state.

**\$31.6
BILLION**

**industry
activity**

**\$2.3
BILLION**

**state & local
tax revenue**

**210,800
JOBS**

**supported in
California**

Table ES-1. Total Impact of the CSU on the State, by Region

Region	Jobs Supported	Industry Activity (\$ millions)	Tax Revenue* (\$ millions)
Bay Area	31,700	\$4,913	\$329
Central Coast	32,700	\$3,254	\$257
Los Angeles	77,000	\$10,564	\$798
Inland Empire	9,700	\$1,138	\$89
North Coast	7,300	\$910	\$60
Sacramento Valley	25,300	\$3,022	\$240
San Diego	33,900	\$4,199	\$309
San Joaquin Valley	26,500	\$2,871	\$230

* Limited to state and local taxes
Note: Due to the model construction of economic impacts, individual regional impacts may not sum to the CSU total impact.
Source: ICF analysis, IMPLAN

¹ Industry Activity is the most common impact metric reported. It measures the total economy-wide industry spending generated across sectors due to CSU-related activity.
² The term “supported” is used to describe job impacts to clarify that the impact may not be net new jobs created but instead may sustain annual employment.
³ Incremental alumni earnings refer to the additional income that CSU graduates earn over their lifetimes (annualized) as a direct result of obtaining a CSU degree. Read more in Appendix D: Glossary of Key Terms

STUDENT IMPACTS

One of the clearest measures of the CSU's impact is the lives that it transforms. Every year, CSU students embark on clear and well-supported pathways that carry them from orientation to graduation, from classroom learning to hands-on practice and often from modest beginnings to middle-class security and civic leadership. Through advising, research experiences, internships, financial aid and comprehensive support, the CSU meets students where they are and propels them toward success whether they're seeking a credential, a bachelor's degree or advanced study.

Graduates leave campus with critical thinking skills, technical expertise and the adaptability demanded by California's dynamic economy. They also gain higher lifetime earnings, expanded opportunity and the confidence to lead. The impact of their earned degrees ripples outward, lifting first-generation graduates, opening career paths and multiplying opportunities for family and neighbors. These individual outcomes translate into broad public value: stronger communities, greater social mobility and a more prosperous California.

By coupling broad access with unmatched affordability, the CSU changes life trajectories at scale. Nearly half of all CSU undergraduates receive Pell Grants, and more than one-third are the first in their families to attend college, making the

system the state's most powerful on-ramp to higher education for low-income and first-generation students. The most recent Wall Street Journal/ College Pulse rankings included seven CSUs among the nation's top 10 for upward mobility. This confirms what Californians already know: The CSU transforms potential into progress.

The CSU's record of student success is quantifiable. Four-year graduation rates for first-time students have nearly doubled, rising from 19% to 36% for the 2020 cohort. Two-year graduation rates for community-college transfers have climbed to 44%. Completion rates overall are at record highs, even as the system continues to narrow equity gaps among underrepresented students. The CSU built on this progress through its Year of Engagement, the most comprehensive and intentional consultation in the system's history to develop a Student Success Framework with the goal of boldly reimagining student success at the CSU.

By uniting evidence-based strategies, strong industry partnerships and an unwavering commitment to affordability, the CSU converts educational opportunity into economic opportunity at a scale few institutions can equal. It accelerates time to degree, boosts lifetime earnings and elevates entire communities, proving that student success, career advancement and social mobility are inseparable hallmarks of the CSU's mission.

48% undergraduates receive Pell Grants	36% four-year graduation rates for first-time students	34% first-generation students	7 CSU campuses in the top 10 for upward mobility
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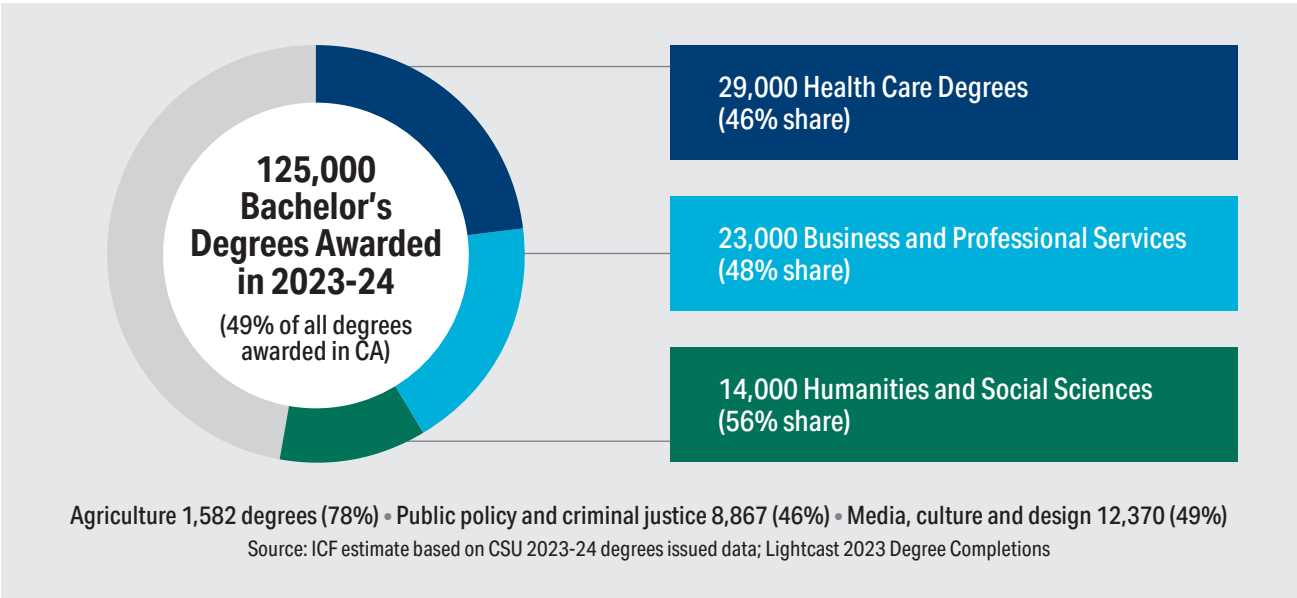
INDUSTRY WORKFORCE IMPACTS

California is home to some of the world’s most dynamic industries: technology, health care, agriculture, entertainment and business. To remain competitive in an ever-changing economy, these sectors thrive on innovation and require a steady pipeline of highly skilled, adaptable workers. Employers in the state consistently seek graduates who have technical expertise, practical skills and real-world experience. The CSU meets this need, aligning its academic programs with California’s economic and labor market demands.

The CSU delivers workforce development at an unparalleled scale. With almost half a million students enrolled each year, the system awards more than 125,000 degrees annually, nearly half of all bachelor’s degrees in California¹. Importantly, 94% of CSU undergraduates are California residents, and the majority remain in the state after graduation. This high retention rate strengthens local economies and ensures that the state’s investment in higher education translates directly into a robust workforce to fuel California’s long-term vitality.

Even as total enrollment declined slightly from a peak of about 486,000 students in 2020–21 to approximately 460,000 in 2024, the CSU has steadily increased degree completion. Over the past decade, the CSU has conferred more than 1 million bachelor’s degrees and more than 200,000 graduate degrees. This consistent output of graduates reflects the CSU’s commitment to helping students succeed.

The CSU is particularly critical to sustaining several of the state’s most vital industries. In 2023-24 alone, the CSU awarded over 29,000 degrees in health care, 23,000 in business and professional services and nearly 14,000 in the humanities and social sciences. The system is the leading source of California’s talent in critical fields. It supplies 78% of bachelor’s degrees in agriculture, 46% in public policy and criminal justice, 49% in media, culture and design, and 46% in health and medicine.



¹ CSU 2023-24 degrees issued dashboard; Lightcast 2023 degree completions in California

SOCIETAL IMPACTS OF CSU RESEARCH

The CSU’s extensive research enterprise is woven into nearly every aspect of the state’s well-being by driving economic growth, fueling innovation and serving communities. As California confronts urgent challenges in climate change, health care, energy, agriculture and technology, the CSU is marshalling its vast research capacity to deliver solutions.

Across its 22 campuses,¹ 10 multicampus research consortia and more than 300 research centers and institutes, the CSU is one of the largest engines of applied research in the nation. Research expenditures reached \$981 million in 2023–24, an increase of nearly 50% since 2019. Between 2019 and 2023, CSU faculty and students produced more than 43,000 peer-reviewed publications, book chapters, creative works and conference papers, advancing knowledge and innovation across a wide range of disciplines.

This growing scholarly profile is reflected in national recognition: 21 CSUs are now recognized by the Carnegie Classification² for significant research activity, with San Diego State University achieving the prestigious R1 designation, placing it among the top 5% of U.S. universities for research intensity. Eight other CSUs hold R2 status.

The CSU’s unique model of collaboration further magnifies its impact. Ten multicampus research collaboratives³ knit together faculty, students and facilities across regions, transforming individual

universities into one integrated statewide innovation network. These consortia focus on high-priority challenges such as sustainable agriculture, wildfire resilience and water security. Pooled expertise and shared resources produce breakthroughs no single campus could achieve alone. This approach also amplifies and unifies one voice to funding agencies and policymakers. Collaboration ensures that discoveries made in Humboldt’s redwood forests can inform practices in Imperial Valley fields, or that a Fresno-led advance in drought-tolerant crops benefits growers in San Diego. By bridging campuses and communities, CSU research not only delivers cutting-edge science but also creates pipelines of talent and solutions that strengthen industries and improve quality of life statewide.

This report includes sections highlighting how CSU research affects key industries and issues critical to California’s future: tech; biotechnology; energy and climate resilience; agriculture; water; and marine resources. Each section describes the importance of the topic, summarizes relevant CSU activities and includes Impact Spotlight profiles that illustrate how CSU research delivers value to students, industry and society at large.



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¹ Transition to 22 universities in progress (Cal Poly San Luis Obispo and Cal Maritime integrating)—official fall 2026.

² <https://www.calstate.edu/csu-system/news/Pages/New-Carnegie-Classifications-Provide-New-Designations-for-CSU-Institutions.aspx>.

³ <https://www.calstate.edu/impact-of-the-csu/research/Pages/campus-research-collaborations.aspx>

INTRODUCTION



THE CSU SYSTEM—DRIVING IMPACT ACROSS THE GOLDEN STATE

As the nation's largest and most diverse four-year public university system, the California State University (CSU) is woven into virtually every aspect of the state's well-being, driving economic growth, supplying talent across essential sectors, powering innovation and directly serving communities. In short, the CSU is a cornerstone of California's economy, society and future.

Through a dynamic combination of high-quality teaching, applied research, and deep partnerships with industry and local communities, the CSU is a transformative force. It changes lives by creating pathways to social mobility for students, strengthens the competitiveness of California's

key industries and helps tackle the state's pressing challenges—from climate change and health care to teacher shortages and technology.

The CSU's contributions are mission-driven and measurable. The system generates billions of dollars annually in economic activity and tax revenue, while supporting hundreds of thousands of jobs throughout California.

This report highlights the breadth and depth of the CSU's impact, showcasing how the system continues to be a powerful engine of opportunity, equity and innovation.

A STATEWIDE POWERHOUSE—THE CSU'S SCALE AND REGIONAL REACH

The CSU is one of the most influential and far-reaching higher education systems in the nation. Its size underpins the CSU's powerful economic, educational and social impact. With 22 campuses¹ stretching from California State Polytechnic University, Humboldt in the north to San Diego State University in the south, the CSU system serves nearly every region of California, each with distinct economic needs, cultural identities and community priorities.

Every year, the CSU enrolls more than 450,000 students and awards over 125,000 degrees across more than 4,000 degree programs that align directly with California's ever-evolving workforce demands. The system employs more than 63,000 faculty and staff, creating educational and economic infrastructure that reaches into all sectors of the state's economy. The CSU's alumni network, more than 4.3 million strong, forms a vast and diverse community of leaders, innovators, and public servants who continue to shape California's future.

Each CSU campus functions as an anchor institution for its region, deeply embedded in the economic, social and civic fabric of its local community. Universities not only provide educational access and opportunity, they also engage in community service, applied research and partnerships that help solve real-world regional challenges, from wildfire resilience to workforce shortages. This makes the CSU a statewide juggernaut and an indispensable force for local growth, equity and innovation.

OPERATIONAL EFFICIENCY—MAXIMIZING IMPACT THROUGH RESPONSIBLE STEWARDSHIP

With a strong commitment to stewardship and student-centered operations, the CSU consistently delivers high-value outcomes while maintaining a lean administrative structure.

Efficient and Focused Administration

The vast majority of CSU expenditures are invested in instruction, student services and academic support, with less than 15% going to administrative costs and other institutional support.² This disciplined financial model ensures that the CSU remains focused on its core mission: expanding access to quality, affordable education.

Flexible, Adaptive Academic Models

CSU campuses often reimagine and enhance existing academic offerings to respond to changing workforce and societal needs rather than build costly new programs. Faculty across the system routinely retool curriculum to align with emerging areas, such as clean energy, biotechnology and data science—keeping the system relevant and responsive without increasing overhead.

Systemwide Efficiencies and Shared Services

The CSU pioneers innovative operational strategies that improve performance and reduce costs. One example is the systemwide network infrastructure program that standardized IT equipment across all CSUs, an unprecedented move for a university system of this size. The program enabled bulk purchasing, significant cost savings, enhanced technological consistency and service quality.

¹ Transition to 22 universities in progress (Cal Poly San Luis Obispo and Cal Maritime integrating)—official fall 2026

² <https://www.calstate.edu/csu-system/about-the-csu/budget/2025-26-operating-budget/Pages/the-csu-today.aspx>

Bay Region Network: A Bold New Model

Chancellor Mildred García is advancing this efficiency model through the San Francisco Bay Region Network, an initiative to consolidate core administrative services, finance, HR, IT, construction and security across three campuses: California State University, East Bay; San Francisco State University; and Sonoma State University. The goal is to deliver high-quality administrative support for less, while preserving each campus's individual leadership and accreditation. This regional model could serve as a blueprint for future operational innovation within the CSU and beyond.

Together, these strategies reflect the CSU's commitment to value, agility and accountability. Despite rising costs and growing demand, the CSU continues to model what an efficient, mission-driven public university system can and should look like.

CSU FORWARD—A NEW STRATEGIC PLAN

In September 2025, the CSU unveiled its new systemwide strategic plan, the first in more than a decade. The plan clearly illuminates the CSU's path forward as a system, while giving its universities the flexibility to leverage their unique strengths and address the specific needs of the communities they serve. The plan focuses on four Performance Objectives to strengthen the CSU's impact over the

long term, and provides a range of deliberate and strategic actions to take and milestones to meet over the next three years.

Performance Objective 1: Strengthen the CSU as the Premier Engine for Economic Mobility

Three-Year Actions Include: Create flexible learning pathways that serve diverse learners throughout their lifetimes; increase post-graduation annual salary outcomes by 3% annually, launch a Technology Incubation Center; increase transfer enrollment by 15%.

Performance Objective 2: Focus on Sustainable Affordability

Three-Year Actions Include: Enhance affordability; ensure 100% of students from lower income families graduate debt-free; implement systemwide shared services and infrastructure to increase operational efficiency; achieve funding equity.

Performance Objective 3: Establish the CSU as the Employer of Choice

Three-Year Actions Include: Improve employee engagement and retention; modernize talent management; develop systemwide leadership and change-management capabilities; build the CSU's reputation as a top employer in higher education.



Performance Objective 4: Maximize Statewide Impact

Three-Year Actions Include: Coordinate advocacy and messaging across campuses; mobilize the CSU's alumni network of more than 4.3 million to actively support students' career advancement; establish the CSU as the recognized resource and partner for regional economic development.

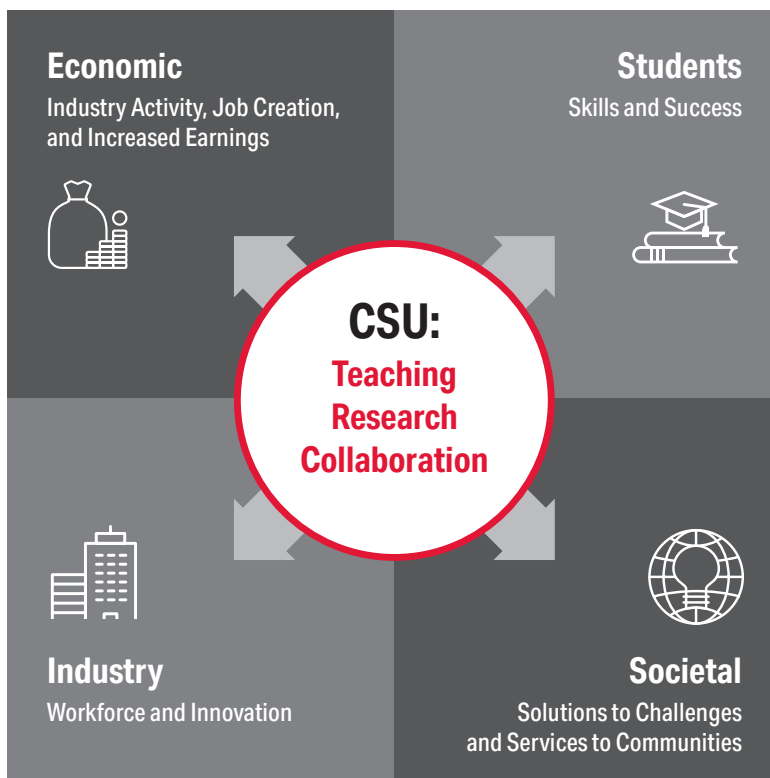
Together, these actions are designed to build a stronger, more responsive and more sustainable CSU that delivers not only for today's students, but for the millions who will follow.

FRAMING THE CSU'S IMPACT—FOUR DIMENSIONS OF VALUE

The CSU generates broad and lasting value for the state of California. This report analyzes the CSU's contributions across four key dimensions:

1. **Economic Impacts.** How the CSU generates measurable economic value in the form of industry activity, job creation and increased earnings.
2. **Student Impacts.** How the CSU transforms lives through access to education, degree attainment, career preparation and pathways to social mobility.
3. **Industry Impacts.** How the CSU strengthens California's industries by supplying talent, driving innovation and meeting regional and statewide workforce needs.
4. **Societal Impacts.** How the CSU's applied research addresses California's most pressing challenges, from climate resilience and water security to biotechnology and cybersecurity.

These four dimensions provide a robust view of the CSU's role as a powerful engine of economic mobility, opportunity and innovation in California. The following sections of this report explore each of these areas in detail, beginning with the CSU's economic impact, analyzed in fiscal terms.



ECONOMIC IMPACTS

The CSU system serves as a pivotal economic engine for the state of California, spurring industry activity, job creation and increased earnings as well as generating tax revenue across the state. This chapter discusses the quantitative estimates of the economic impact of the CSU, both systemwide and regionally. These impacts are driven by both CSU-related expenditures, by the university itself and by current students, and the substantial effect of CSU alumni incremental earnings that are attributable to their CSU degree.

METHODOLOGY

This analysis uses the economic impact modeling software IMPLAN (IMPLAN Online) to calculate the total industry impacts. The IMPLAN model is based on the input-output data from the U.S. National Income and Product Accounts (NIPA) from the Bureau of Economic Analysis within the U.S. Department of Commerce. The model includes 546 sectors based on the North American Industry Classification System (NAICS). The model uses state-specific multipliers to trace and calculate the flow of dollars from the industries that originate the impact to supplier industries. Multipliers convert the input values (such as increased spending or employment) into a net economic impact retained in the region, allowing for leakages¹ outside of the local economy.

Direct impacts² occur in the industries where primary activities occur; indirect impacts are in industries that supply or interact with the primary industries; spending from increased wages for workers in directly and indirectly impacted industries lead to induced³ impacts. Indirect⁴ and induced impacts are often referred to as secondary impacts. By assessing the economic impact of the CSU at the state and regional level, the total impact of each campus can be fully understood. The IMPLAN model estimates impacts in terms of the following outputs:

- **Employment**—Jobs supported by the CSU.
- **Labor Income**—Wages and salaries (including benefits) paid to workers, plus proprietor income, supported by CSU activity.
- **Industry Activity**—Total economy-wide industry spending generated across sectors due to CSU-related activity.
- **Tax Impact**—Tax revenues from businesses, sales, excise and property from all activity supported by the CSU.

Throughout this report, ICF also analyzes California's return on investment for every dollar the state invests in the CSU. Return on investment is calculated by dividing the total industry activity impact by the total dollar amount of the state investment in the CSU or the relevant campus.

Details about the methodology used in assessing the CSU's systemwide and regional economic impact can be found in Appendix A: Impact Analysis Methodology.

¹ Leakage refers to industry activity, employment, labor income or taxes (impacts) that are experienced outside of the region of analysis due to supply chains that extend beyond the region, in other words, these dollars are "leaked" out of the region. Read more in Appendix D: Glossary of Terms

² Direct impact refers to the immediate economic effects of CSU-related activities. These impacts occur in the industry sectors where the primary activity occurs. Direct impact = input – regional leakage

³ Induced impacts capture the secondary effect on industries from increased wages for workers in directly and indirectly impacted industries. Workers use their income to buy goods and services, further stimulating the economy in sectors like retail, health care, and entertainment

⁴ Indirect impact captures the secondary effects on industries that supply or interact with the primary industries directly affected by CSU spending

DRIVERS OF ECONOMIC IMPACT: SPENDING AND ALUMNI EARNINGS

**\$11.7
BILLION**

**operational &
auxiliary expenditures**

**\$1.2
BILLION**

**capital expenditures
(four-year average)**

**\$7.9
BILLION**

**student
spending**

The CSU's modeled economic impacts are driven by a combination of CSU expenditures, student spending, and incremental alumni earnings that are attributable to a CSU degree. Inputs to the economic model include: CSU operational expenditures (e.g., wages, salaries, supplies and other continuing costs), CSU auxiliary expenditures (e.g., bookstores, campus dining, foundation and research institutes), CSU construction and capital expenditures, and CSU student spending (e.g., on books and supplies, housing, food, transportation and other living expenses).

During the 2023–24 academic year, the CSU and its students contributed over \$20 billion directly to the California economy:

- \$9.5 billion in operational expenditures
- \$2.2 billion in auxiliary expenditures
- \$1.2 billion in capital expenditures¹ (four-year average)²
- \$7.9 billion in student expenditures

Many CSU alumni remain in the state after graduation and contribute to the local economy. In 2024, alumni received \$97.8 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

STATEWIDE IMPACTS

The spending in each segment goes beyond direct impacts. Indirect and induced impacts associated with operational and capital expenditures support construction and manufacturing jobs statewide. Auxiliary expenditures and student spending support a variety of accommodation and research and development entities. Incremental alumni earnings are spent on consumer goods including rent, groceries, car payments, entertainment, restaurants and all other discretionary spending categories. Together, each dollar spent by the CSU on an annual basis and its alumni's incremental earnings find their way into every corner of the California economy.

The expenditures outlined generate significant impacts across California, supporting a total of 210,800 jobs, contributing \$13.5 billion in labor income, spurring \$31.6 billion in industry activity and returning \$2.3 billion in state and local taxes during the 2023–24 academic year.

**\$97.8
BILLION**

**incremental
alumni earnings**

**\$31.6
BILLION**

**statewide
industry activity**

**\$114.5
BILLION**

**alumni
impact**

¹ Capital costs include building maintenance, as well as software licenses and equipment costs which may require renewal every year or every few years.

² The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

Campus operational activities were the largest driver, accounting for over 128,000 jobs and \$8.7 billion in wages. Student spending and auxiliary services also played significant roles, collectively supporting 69,000 jobs and injecting \$3.7 billion into industry activity. Capital expenditures, though smaller in scale, still supported over 13,000 jobs and generated \$1.1 billion in wages. When factoring in the significant impact of incremental alumni earnings to annual contributions to the state of California, the CSU supports over 550,300 jobs, \$39.4 billion in labor income, \$114.5 billion in industry activity and \$9 billion in tax revenue, underscoring the CSU's compelling role in statewide economics and public finance.

Table 1 shows the contribution of each spending category to the CSU's cumulative annual economic impact across California. Operational expenditures make up the most significant component, generating 55% of the total industry activity impact. However, this impact pales considerably to alumni impact, which generated more than three times the industry activity of annual CSU-related spending.

Table 1. Annual Economic Contribution of the CSU to California's Economy

Input	Employment	Labor Income (\$ billions)	Industry Activity (\$ billions)	Tax Impact (\$ billions)
Operational Expenditures	128,400	\$8.7	\$17.6	\$1.1
Capital Expenditures	13,500	\$1.1	\$2.3	\$0.1
Auxiliary	20,200	\$1.2	\$3.4	\$0.3
Student Spending	48,800	\$2.5	\$8.2	\$0.8
Total	210,800	\$13.5	\$31.6	\$2.3
Alumni Impacts	550,300	\$39.4	\$114.5	\$9

RETURN ON INVESTMENT

Another way to consider the CSU's impact is in the context of the state's annual investment. As a public university, the CSU receives funding from the state to educate residents of California. The return that the CSU provides back to the state in terms of economy-wide impact from annual operations, as well as the life-long earning potential for CSU alumni, really demonstrates its impressive value. During the 2023–24 academic year, California invested \$4.1 billion¹ in the CSU operation and capital appropriations for our campuses. For every dollar the state invested, the CSU generated \$7.69 in statewide industry activity. Moreover, when taking into account CSU alumni's spending of incremental earnings as a result of their degree, the CSU's impact grows to an even more impressive \$35.53. These figures underscore the public university's tremendous economic value to California.

Every state dollar invested
generates:

\$7.69
in statewide industry activity

\$35.53
in statewide industry activity
when factoring in alumni
earnings across California

¹ While California invested a total of \$4.1 billion in CSU campuses, an additional \$0.8 billion was allocated to the Chancellor's Office and Systemwide activities for a combined total of \$4.9 billion.

REGIONAL IMPACTS

In addition, CSU campuses strongly boost regional economies through the purchases of goods and services from their communities. By assessing the regional and statewide impacts, the singular impact of each university can be better understood.

In this section of the report, the economic impacts of the CSU campuses in eight California regions are quantified. Consistent with the 2004, 2010 and 2020 impact reports, the regions were grouped by counties that shared a common economic base or commuter shed. Naturally, the impacts in each region vary, depending on factors such as the campuses' total magnitude of direct spending, the campuses' proportional spending by type, the percent of spending that is local and the proportion of alumni who stay in the region.

Details of the economic impact calculations for each campus and region, and the state, are provided in Appendix B: Model Inputs by Campus and Region.

Table 2 summarizes the significant economic contributions of CSU campuses to the state.



Table 2. Total Impact of the CSU on the State, by Region

Region	Jobs Supported	Industry Activity (\$ millions)	Tax Revenue ¹ (\$ millions)
Bay Area	31,700	\$4,913	\$329
Central Coast	32,700	\$3,254	\$257
Los Angeles	77,000	\$10,564	\$798
Inland Empire	9,800	\$1,165	\$89
North Coast	7,300	\$910	\$60
Sacramento Valley	25,300	\$3,022	\$240
San Diego	33,900	\$4,199	\$309
San Joaquin Valley	26,500	\$2,871	\$230

¹ Limited to state and local taxes

Note: Due to customized campus regions, individual regional impacts do not sum to the CSU total impact.

Source: ICF analysis, IMPLAN

4 Universities Throughout the Bay Area



THE BAY AREA REGION

COUNTIES: ALAMEDA, CONTRA COSTA, LAKE, MARIN, NAPA, SAN FRANCISCO, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, SONOMA

CAMPUSES: CALIFORNIA STATE UNIVERSITY, EAST BAY; CAL POLY MARITIME ACADEMY¹; SAN FRANCISCO STATE UNIVERSITY; SAN JOSÉ STATE UNIVERSITY; SONOMA STATE UNIVERSITY

Direct Spending and Alumni Earnings

CSU spending through campus operations, capital investment and student spending on and off campus stimulate the economy of the Bay Area region. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

CSUs in the Bay Area had a direct spend of over \$3.6 billion during the 2023-24 academic year, comprising the following four categories:

- **\$1.7 billion on operational expenditures**
- **\$279.6 million on capital expenditures (four-year average)²**
- **\$206.2 million on auxiliary expenditures**
- **\$1.4 billion on student expenditures**

Every state dollar invested generates:

\$6.59

in statewide industry activity

\$38.13

in statewide industry activity when factoring in alumni earnings from Bay Area campuses

¹ Transition to 22 universities in progress (Cal Poly San Luis Obispo and Cal Maritime integrating)—official fall 2026

² The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$19.5
BILLION**

**incremental
alumni earnings**

Many CSU alumni from campuses in the Bay Area region remain in California, contributing to the local economy. In 2024, they earned \$19.5 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, sparked secondary impacts.

Regional Impact

During the 2023-24 academic year, CSUs in the Bay Area region generated a substantial economic impact across the region, supporting over 31,000 jobs and contributing \$2.2 billion in labor income. Campus operational activities were the largest driver, accounting for more than 20,000 jobs and \$1.4 billion in wages. Student spending and auxiliary services supported more than 8,000 jobs and injected nearly \$1.7 billion into industry activity. Capital expenditures, while smaller in scale, supported 2,300 jobs and over \$230 million in wages. Altogether, these activities culminated in \$4.8 billion in industry activity and \$321 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. Table 3 provides a further breakdown of results.

**\$1.9
BILLION**

**operational & auxiliary
expenditures**

**\$279.6
MILLION**

**capital expenditures
(four-year average)**

**\$1.4
BILLION**

**student
spending**

Table 3. Total Impact of Bay Area Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	20,600	\$1,420	\$2,704	\$148
Capital Expenditures	2,300	\$231	\$434	\$20
Auxiliary	1,600	\$113	\$286	\$21
Student Spending	6,600	\$403	\$1,363	\$131
Total	31,000	\$2,167	\$4,787	\$321

Source: ICF analysis, IMPLAN

**\$4.9
BILLION**

**statewide industry
activity**

**\$23.5
BILLION**

**alumni
impact**

Statewide Impact

Campus operational activity, capital spend and student spend of CSUs in the Bay Area region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When Bay Area region CSU alumni spend such earnings in the state, an estimated 66,300 jobs, \$5.2 billion in labor income, \$14.5 billion in industry activity and a remarkable \$29.4 billion in tax revenue are created each year. This underscores the long-term value of educational institutions not only as regional economic engines but also as drivers of statewide prosperity through their graduates' continuing economic contributions. Table 4 provides a further breakdown of results.

Table 4. Total Impact of Bay Area Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	20,900	\$1,434	\$2,762	\$152
Capital Expenditures	2,400	\$238	\$464	\$22
Auxiliary	1,600	\$115	\$293	\$22
Student Spending	6,800	\$414	\$1,395	\$133
Total	31,700	\$2,201	\$4,913	\$329
Alumni Impacts	121,000	\$7,789	\$23,524	\$1,883

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, Bay Area region campuses returned \$6.59 in industry activity. The return jumps nearly sixfold, to \$38.13 when alumni income is included. These figures demonstrate the value of CSU programs long past a student's direct attendance.

3 Universities Throughout the Central Coast

MONTEREY BAY

SAN LUIS OBISPO

CHANNEL ISLANDS

THE CENTRAL COAST REGION

COUNTIES: MONTEREY, SAN BENITO, SAN LUIS OBISPO, SANTA BARBARA, VENTURA

CAMPUSES: CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS; CALIFORNIA STATE UNIVERSITY, MONTEREY BAY; CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO

Direct Spending and Alumni Earnings

The economic impact of CSU campuses in the Central Coast region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

CSUs in the Central Coast region had a direct spend of nearly \$2 billion during the 2023-24 academic year, comprising the following four categories:

- **\$1.1 billion on operational expenditures**
- **\$123.4 million on capital expenditures (four-year average)¹**
- **\$279.9 million on auxiliary expenditures**
- **\$478.1 million on student expenditures**

Every state dollar invested generates:

\$7.33
in statewide industry activity

\$22.73
in statewide industry activity
when factoring in alumni
earnings from Central Coast
campuses

¹ The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$5.4
BILLION**

**incremental
alumni earnings**

Many CSU alumni from campuses in the Central Coast region stay in California and contribute to the local economy. In 2024, these alumni received \$5.4 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSU campuses in the Central Coast region generated a substantial economic impact across the region, supporting more than 31,500 jobs and contributing \$1.1 billion in labor income. Campus operational activities were the largest driver, accounting for over 23,000 jobs and \$744 million in wages. Student spending and auxiliary services supported more than 7,000 jobs and injected nearly \$900 million into industry activity. Capital expenditures, while smaller in scale, also contributed to regional economic activity, supporting 1,300 jobs and contributing \$91 million in labor income. Altogether, these activities culminated in nearly \$3 billion in industry activity and \$240 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. Table 5 provides a further breakdown of results.

**\$1.4
BILLION**

**operational & auxiliary
expenditures**

**\$123.4
MILLION**

**capital expenditures
(four-year average)**

**\$478.1
MILLION**

**student
spending**

Table 5. Total Impact of Central Coast Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	23,100	\$744	\$1,869	\$123
Capital Expenditures	1,300	\$91	\$192	\$11
Auxiliary	3,200	\$134	\$400	\$36
Student Spending	4,000	\$132	\$494	\$69
Total	31,500	\$1,101	\$2,955	\$240

Source: ICF analysis, IMPLAN

**\$3.3
BILLION**
statewide
industry activity

**\$6.8
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the Central Coast region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When Central Coast region CSU alumni spend such earnings in the state, an estimated 32,300 jobs, \$2.3 billion in labor income, \$6.8 billion in industry activity and a remarkable \$534 million in tax revenue are created each year. Table 6 provides a further breakdown of results.

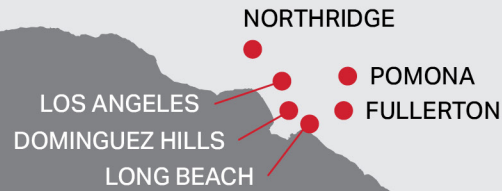
Table 6. Total Impact of Central Coast Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	23,800	\$805	\$2,065	\$134
Capital Expenditures	1,400	\$99	\$217	\$12
Auxiliary	3,300	\$147	\$437	\$38
Student Spending	4,100	\$146	\$535	\$72
Total	32,700	\$1,196	\$3,254	\$257
Alumni Impacts	32,300	\$2,321	\$6,842	\$534

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, Central Coast region campuses returned \$7.33 in industry activity. The return jumps to \$22.73 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

6 Universities Throughout the Los Angeles Region



THE LOS ANGELES REGION

COUNTIES: LOS ANGELES, ORANGE

CAMPUSES: CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS; CALIFORNIA STATE UNIVERSITY, FULLERTON; CALIFORNIA STATE UNIVERSITY, LONG BEACH; CALIFORNIA STATE UNIVERSITY, LOS ANGELES; CALIFORNIA STATE UNIVERSITY, NORTHRIDGE; CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA¹

Direct Spending and Alumni Earnings

The economic impact of CSU campuses in the Los Angeles region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

Every state dollar invested generates:

\$6.96
in statewide industry activity

\$33.44
in statewide industry activity when factoring in alumni earnings from Los Angeles campuses

CSU campuses in the Los Angeles region had a direct spend of \$7 billion during the 2023-24 academic year, comprising the following four categories:

- **\$3.1 billion on operational expenditures**
- **\$281.4 million on capital expenditures (four-year average)²**
- **\$514.2 million on auxiliary expenditures**
- **\$3.1 billion on student expenditures**

¹ Cal Poly Pomona's impacts are felt in four California counties. Its Los Angeles County and Orange County impacts are included in the Los Angeles Region. Its impacts in San Bernardino County and Riverside County are included in the Inland Empire Region.

² The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$37
BILLION**

**alumni wages
and earnings**

Many CSU alumni from campuses in the Los Angeles region stay in California and contribute to the local economy. In 2024, these alumni received \$37 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSU campuses in the Los Angeles region generated a substantial economic impact across the region, supporting a total of nearly 74,900 jobs and contributing \$4.3 billion in labor income. Campus operational activities were the largest driver, accounting for over 42,000 jobs and \$2.7 billion in wages. Student spending supported more than 24,500 jobs and injected over \$3 billion into industry activity. Capital expenditures and auxiliary services, while smaller in scale, also contributed 8,000 jobs and over \$1.3 billion in industry activity. Altogether, these activities culminated in over \$10 billion in industry activity and \$768 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. Table 7 provides a further breakdown of results.

**\$3.6
BILLION**

**operational & auxiliary
expenditures**

**\$281.4
MILLION**

**capital expenditures
(four-year average)**

**\$3.1
BILLION**

**student
spending**

Table 7. Total Impact of Los Angeles Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	42,400	\$2,685	\$5,471	\$341
Capital Expenditures	3,100	\$234	\$500	\$27
Auxiliary	4,900	\$288	\$809	\$64
Student Spending	24,600	\$1,052	\$3,305	\$336
Total	74,900	\$4,254	\$10,055	\$768

Source: ICF analysis, IMPLAN

**\$10.6
BILLION**
statewide
industry activity

**\$40.2
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the Los Angeles region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When Los Angeles region CSU alumni spend such earnings in the state an estimated 192,500 jobs, \$13.7 billion in labor income, \$40.2 billion in industry activity and a remarkable \$3.2 billion in tax revenue is created each year. Table 8 provides a further breakdown of results.

Table 8. Total Impact of Los Angeles Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	43,500	\$2,768	\$5,738	\$358
Capital Expenditures	3,200	\$247	\$545	\$30
Auxiliary	5,100	\$298	\$842	\$66
Student Spending	25,200	\$1,099	\$3,439	\$344
Total	77,000	\$4,412	\$10,564	\$798
Alumni Impacts	192,500	\$13,727	\$40,210	\$3,215

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, Los Angeles region campuses returned \$6.96 in industry activity. The return jumps to \$33.44 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

1 University Throughout the Inland Empire

● SAN BERNARDINO

THE INLAND EMPIRE REGION

COUNTIES: RIVERSIDE, SAN BERNARDINO

CAMPUS: CAL STATE SAN BERNARDINO¹

Direct Spending and Alumni Earnings

Cal State San Bernardino's economic impact in the region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

Cal State San Bernardino had a direct spend of nearly \$780 million in the region during the 2023-24 academic year, comprising the following four categories:

- **\$350.2 million on operational expenditures**
- **\$58.3 million on capital expenditures (four-year average)²**
- **\$64.8 million on auxiliary expenditures**
- **\$306.3 million on student expenditures**

Every state dollar invested
generates:

\$10.17
in statewide industry activity

\$50.84
in statewide industry activity
when factoring in alumni
earnings from Inland Empire
campuses

¹ Cal Poly Pomona's direct, indirect and induced impacts in Los Angeles County and Orange County are included in the Los Angeles Region impacts. Additional indirect and induced impacts in San Bernardino County and Riverside County are included in the Inland Empire Region.

² The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$3.7
BILLION**

**alumni wages
and earnings**

Many CSU alumni from campuses in the Inland Empire region stay in California and contribute to the local economy. In 2024, alumni from Inland Empire region campuses received \$3.7 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSUs in the Inland Empire region generated a substantial economic impact across the region, supporting more than 9,200 jobs and contributing \$415 billion in labor income. Campus operational activities were the largest driver, accounting for over 5,560 jobs and \$258 million in wages. Student spending supported more than 2,400 jobs and injected nearly \$300 million into industry activity. Capital expenditures and auxiliary services, while smaller in scale, contributed 1,240 jobs and \$173 million in industry activity. Altogether, these activities culminated in over \$1 billion in industry activity and \$78 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. A further breakdown of results is provided in Table 9.

**\$415
MILLION**

**operational & auxiliary
expenditures**

**\$58.3
MILLION**

**capital expenditures
(four-year average)**

**\$306.3
MILLION**

**student
spending**

Table 9. Total Impact of Inland Empire Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	5,600	\$258	\$545	\$33
Capital Expenditures	600	\$43	\$88	\$5
Auxiliary	640	\$28	\$85	\$7
Student Spending	2,400	\$86	\$291	\$34
Total	9,200	\$415	\$1,009	\$78

Source: ICF analysis, IMPLAN

**\$1.1
BILLION**
statewide
industry activity

**\$4.7
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the Inland Empire region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When Inland Empire region CSU alumni spend such earnings in the state an estimated 21,800 jobs, \$1.6 billion in labor income, \$4.7 billion in industry activity and a remarkable \$364 million in tax revenue are created each year. Table 10 provides a further breakdown of results.

Table 10. Total Impact of Inland Empire Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	5,900	\$288	\$644	\$39
Capital Expenditures	650	\$47	\$102	\$6
Auxiliary	690	\$32	\$98	\$8
Student Spending	2,500	\$96	\$323	\$36
Total	9,800	\$462	\$1,165	\$89
Alumni Impacts	21,800	\$1,591	\$4,658	\$364

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, Inland Empire region campuses returned \$10.17 in industry activity. The return jumps to \$50.84 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

1 University Throughout the North Coast Region

HUMBOLDT

THE NORTH COAST REGION

COUNTIES: DEL NORTE, HUMBOLDT,
MENDOCINO, SISKIYOU, TRINITY

CAMPUS: CALIFORNIA STATE POLYTECHNIC
UNIVERSITY, HUMBOLDT

Direct Spending and Alumni Earnings

Cal Poly Humboldt's economic impact in the region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

Cal Poly Humboldt had a direct spend of over \$495 million in the region during the 2023-24 academic year, comprising the following four categories:

- \$295.9 million on operational expenditures
- \$56.5 million on capital expenditures (four-year average)¹
- \$62 million on auxiliary expenditures
- \$81 million on student expenditures

Every state dollar invested
generates:

\$7.52

in statewide industry activity

\$21.08

in statewide industry activity
when factoring in alumni
earnings from the North Coast
campus

¹ The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$1.3
BILLION**

**alumni wages
and earnings**

Many Humboldt alumni stay in California and contribute to the local economy. In 2024, alumni received \$1.3 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, Cal Poly Humboldt generated a substantial economic impact across the region, supporting nearly 6,600 jobs and contributing \$223 million in labor income. Campus operational activities were the largest driver, accounting for nearly 5,000 jobs and \$138 million in wages. Student spending, auxiliary services and capital expenditures supported more than 1,600 jobs and injected \$240 million into industry activity. Altogether, these activities culminated in \$718 million in industry activity and \$50 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. Table 11 further breaks down the results.

**\$357.9
MILLION**

**operational & auxiliary
expenditures**

**\$56.5
MILLION**

**capital expenditures
(four-year average)**

**\$81
MILLION**

**student
spending**

Table 11. Total Impact of the North Coast Campus on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	5,000	\$138	\$479	\$28
Capital Expenditures	600	\$40	\$85	\$5
Auxiliary	600	\$25	\$83	\$8
Student Spending	400	\$20	\$72	\$10
Total	6,600	\$223	\$718	\$50

Source: ICF analysis, IMPLAN

**\$909.8
MILLION**
statewide
industry activity

**\$1.6
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the North Coast region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When North Coast region CSU alumni spend such earnings in the state an estimated 7,800 jobs, \$556 million in labor income, \$1.6 billion in industry activity and \$128 million in tax revenue are created each year. Table 12 provides a further breakdown of results.

Table 12. Total Impact of the North Coast Campus on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	5,500	\$187	\$634	\$36
Capital Expenditures	650	\$43	\$95	\$5
Auxiliary	690	\$29	\$97	\$8
Student Spending	430	\$24	\$83	\$11
Total	7,300	\$283	\$910	\$60
Alumni Impacts	7,800	\$556	\$1,640	\$128

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, North Coast region campuses returned \$7.52 in industry activity. The return jumps to \$21.08 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

2 Universities Throughout the Sacramento Valley

● CHICO

● SACRAMENTO

THE SACRAMENTO VALLEY REGION

COUNTIES: ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SUTTER, TEHAMA, YOLO, YUBA

CAMPUSES: CALIFORNIA STATE UNIVERSITY, CHICO; CALIFORNIA STATE UNIVERSITY, SACRAMENTO

Direct Spending and Alumni Impact

The economic impact of CSU campuses in the Sacramento Valley region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

CSU campuses in the Sacramento Valley region had a direct spend of over \$2 billion during the 2023-24 academic year, comprising the following four categories:

- **\$839 million on operational expenditures**
- **\$75 million on capital expenditures (four-year average)¹**
- **\$260.9 million on auxiliary expenditures**
- **\$802.9 million on student expenditures**

Every state dollar invested generates:

\$6.43
in statewide industry activity

\$47.19
in statewide industry activity
when factoring in alumni
earnings from Sacramento
Valley campuses

¹ The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$15.2
BILLION**

**alumni wages
and earnings**

Many CSU alumni from campuses in the Sacramento Valley region stay in California and contribute to the local economy. In 2024, alumni from Sacramento Valley region campuses received \$15.2 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSU campuses in the Sacramento Valley region generated a substantial economic impact across the region, supporting 24,613 jobs and contributing \$2.8 billion in labor income. Campus operational activities were the largest driver, accounting for nearly 14,807 jobs and \$674 million in wages. Student spending also supported 6,232 jobs and \$219 million in wages. Capital expenditures and auxiliary services, while somewhat smaller in scale, supported more than 3,500 jobs and injected \$509 million into industry activity. Altogether, these activities culminated in \$2.8 billion in industry activity and \$229 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. A further breakdown of results is provided in Table 13.

**\$1.1
BILLION**

**operational & auxiliary
expenditures**

**\$75
MILLION**

**capital expenditures
(four-year average)**

**\$802.9
MILLION**

**student
spending**

Table 13. Total Impact of Sacramento Valley Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	14,800	\$674	\$1,484	\$94
Capital Expenditures	800	\$59	\$125	\$7
Auxiliary	2,800	\$125	\$384	\$32
Student Spending	6,200	\$219	\$825	\$96
Total	24,600	\$1,076	\$2,818	\$229

Source: ICF analysis, IMPLAN

\$3
BILLION
statewide
industry activity

\$19.2
BILLION
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the Sacramento Valley region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When Sacramento Valley region CSU alumni spend such earnings in the state an estimated 90,500 jobs, \$6.5 billion in labor income, \$19.2 billion in industry activity, and a remarkable \$1.5 billion in tax revenue are created each year. Table 14 provides a further breakdown of results.

Table 14. Total Impact of Sacramento Valley Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	15,200	\$706	\$1,594	\$100
Capital Expenditures	850	\$62	\$137	\$7
Auxiliary	2,900	\$134	\$411	\$33
Student Spending	6,400	\$235	\$879	\$99
Total	25,300	\$1,137	\$3,022	\$240
Alumni Impacts	90,500	\$6,520	\$19,163	\$1,499

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, Sacramento Valley region campuses returned \$6.43 in industry activity. The return jumps to \$47.19 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

2 Universities Throughout the San Diego Region



● SAN MARCOS
● SAN DIEGO

THE SAN DIEGO REGION

COUNTIES: IMPERIAL, SAN DIEGO

CAMPUSES: SAN DIEGO STATE UNIVERSITY,
CALIFORNIA STATE UNIVERSITY SAN MARCOS

Direct Spending and Alumni Earnings

The economic impact of CSU campuses in the San Diego region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

CSU campuses in the San Diego region had a direct spend of over \$2.6 billion during the 2023-24 academic year, comprising the following four categories:

- **\$1.1 billion on operational expenditures**
- **\$238.4 million on capital expenditures (four-year average)¹**
- **\$467 million on auxiliary expenditures**
- **\$829.9 million on student expenditures**

Every state dollar invested
generates:

\$13.60
in statewide industry activity

\$42.56
in statewide industry activity
when factoring in alumni
earnings from San Diego
campuses

¹ The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$7.1
BILLION**

**alumni wages
and earnings**

Many CSU alumni from campuses in the San Diego region stay in California and contribute to the local economy. In 2024, alumni from San Diego region campuses received \$7.1 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSU campuses in the San Diego region generated a substantial economic impact across the region, supporting a total of 32,760 jobs and contributing \$1.6 billion in labor income. Campus operational activities were the largest driver, accounting for 18,879 jobs and \$911 million in wages. Capital expenditures, auxiliary services, and student spending all also generated a substantial impact, collectively supporting nearly 14,000 jobs and \$645 million in wages. Altogether, these activities culminated in \$3.9 billion in industry activity and \$291 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. A further breakdown of results is provided in Table 15.

**\$1.6
BILLION**

**operational & auxiliary
expenditures**

**\$238.4
MILLION**

**capital expenditures
(four-year average)**

**\$829.9
MILLION**

**student
spending**

Table 15. Total Impact of San Diego Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	18,900	\$911	\$2,010	\$128
Capital Expenditures	2,600	\$188	\$399	\$22
Auxiliary	4,600	\$226	\$686	\$55
Student Spending	6,700	\$231	\$814	\$86
Total	32,800	\$1,555	\$3,909	\$291

Source: ICF analysis, IMPLAN

**\$4.2
BILLION**
statewide
industry activity

**\$8.9
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the San Diego region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When San Diego region CSU alumni spend such earnings in the state an estimated 42,200 jobs, \$3.1 billion in labor income, \$8.9 billion in industry activity, and a remarkable \$700 million in tax revenue are created each year. Table 16 provides a further breakdown of results.

Table 16. Total Impact of San Diego Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	19,400	\$951	\$2,149	\$137
Capital Expenditures	2,700	\$199	\$441	\$25
Auxiliary	4,800	\$240	\$731	\$58
Student Spending	7,000	\$251	\$878	\$90
Total	33,900	\$1,642	\$4,199	\$309
Alumni Impacts	42,200	\$3,047	\$8,939	\$700

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, San Diego region campuses returned \$13.60 in industry activity. The return jumps to \$42.56 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

3 Universities Throughout the San Joaquin Valley



THE SAN JOAQUIN VALLEY REGION

COUNTIES: CALAVERAS, FRESNO, INYO, KERN, KINGS, MADERA, MARIPOSA, MERCED, MONO, SAN JOAQUIN, STANISLAUS, TUOLUMNE, TULARE

CAMPUSES: CALIFORNIA STATE UNIVERSITY, BAKERSFIELD; CALIFORNIA STATE UNIVERSITY, FRESNO; CALIFORNIA STATE UNIVERSITY, STANISLAUS

Direct Spending and Alumni Earnings

The economic impact of CSU campuses in the San Joaquin Valley region is driven by spending that occurs through campus operations, capital investment and student spending on and off campus. As detailed in Appendix B, the direct spending for each campus is estimated using CSU financial data, enrollment figures, average student budget estimates and an analysis of California-based alumni earnings over time.

Every state dollar invested
generates:

\$7.38
in statewide industry activity

\$34.34
in statewide industry activity
when factoring in alumni
earnings from San Joaquin
Valley campuses

CSU campuses in the San Joaquin Valley region had a direct spend of over \$1.8 billion during the 2023-24 academic year, comprising the following four categories:

- **\$853.8 million on operational expenditures**
- **\$95.8 million on capital expenditures (four-year average)¹**
- **\$188 million on auxiliary expenditures**
- **\$750 million on student expenditures**

¹ The CSU's calculated four-year average (2021 to 2024) for campus capital expenditures is used because expenditures vary year to year.

**\$8.4
BILLION**

**alumni wages
and earnings**

Many CSU alumni from campuses in the San Joaquin Valley region stay in California and contribute to the local economy. In 2024, alumni from San Joaquin Valley region campuses received \$8.4 billion in incremental earnings due to their CSU degree. That money, when spent in the local economy, stimulated secondary impacts.

Regional Impact

During the 2023-24 academic year, CSU campuses in the San Joaquin Valley region generated a substantial economic impact across the region, supporting a total of 25,300 jobs and contributing \$996 million in labor income. Campus operational activities were the largest driver, accounting for 16,450 jobs and \$602 million in wages. Student spending also generated a substantial impact, supporting 5,806 jobs and generating \$234 million in wages. Capital expenditures and auxiliary services, while smaller in scale, had a sizable impact and collectively supported 3,044 jobs and \$160 million in labor income. Altogether, these activities culminated in \$2.6 billion in industry activity and \$212 million in tax revenues, underscoring the campuses' vital role in regional economic vitality and public finance. A further breakdown of results is provided in Table 17.

**\$1
BILLION**

**operational & auxiliary
expenditures**

**\$95.8
MILLION**

**capital expenditures
(four-year average)**

**\$750
MILLION**

**student
spending**

Table 17. Total Impact of San Joaquin Valley Campuses on the Region

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	16,500	\$602	\$1,417	\$94
Capital Expenditures	1,000	\$74	\$158	\$9
Auxiliary	2,000	\$86	\$264	\$23
Student Spending	5,800	\$234	\$722	\$86
Total	25,300	\$996	\$2,561	\$212

Source: ICF analysis, IMPLAN

**\$2.9
BILLION**
statewide
industry activity

**\$10.5
BILLION**
alumni
impact

Statewide Impact

Campus operational activity, capital spending and student spend of CSUs in the San Joaquin Valley region similarly benefit the state's economy. Note that the statewide impact exceeds the total of regional impacts across all expenditure categories, due to industry leakages from the regional economy that are captured at the state level.

The statewide analysis includes the significant additional impact from alumni incremental earnings. When San Joaquin Valley region CSU alumni spend such earnings in the state an estimated 49,500 jobs, \$3.6 billion in labor income, \$10.5 billion in industry activity, and a remarkable \$821 million in tax revenue are created each year. Table 18 provides a further breakdown of results.

Table 18. Total Impact of San Joaquin Valley Campuses on the State

Input	Employment	Labor Income (\$ millions)	Industry Activity (\$ millions)	Tax Impact (\$ millions)
Operational Expenditures	17,200	\$664	\$1,622	\$106
Capital Expenditures	1,100	\$79	\$173	\$10
Auxiliary	2,100	\$95	\$292	\$25
Student Spending	6,000	\$254	\$785	\$89
Total	26,500	\$1,092	\$2,871	\$230
Alumni Impacts	49,500	\$3,587	\$10,480	\$821

Source: ICF analysis, IMPLAN

The CSU's impact on California can be more clearly viewed through its return on investment. For every dollar the state invested, San Joaquin Valley region campuses returned \$7.38 in industry activity. The return jumps to \$34.34 when alumni income is included. These figures demonstrate the value of CSU programs long past direct student attendance.

ENABLING STUDENT SUCCESS AND SOCIAL MOBILITY

One important metric of the CSU's success is the lives that it changes. Each year, students embark on clear, well-supported pathways that carry them from orientation to graduation, from classroom learning to real-world practice, and often from modest beginnings to middle-class security and civic leadership. Whether a student seeks a practical credential, a bachelor's degree or advanced study, the CSU tailors resources to meet learners where they are and propels them toward success through advising, research experiences, internships, financial aid and wrap-around support.

The CSU's impact extends far beyond the individual student. The positive outcomes of alumni's earned degrees ripple outward, elevating first-generation graduates, opening career paths and multiplying opportunities for family and neighbors. Graduates leave campus equipped with critical thinking, technical expertise and adaptable skills demanded by California's dynamic economy. They also leave with an expanded sense of possibility, higher lifetime earnings and the confidence to lead. The CSU's student-centered mission results in measurable gains in academic achievement, career advancement and social mobility. When the CSU invests in its students, the return is shared by all of California.

THE CSU: CALIFORNIA'S MOST POWERFUL ENGINE OF SOCIAL MOBILITY

The CSU doesn't just award diplomas, it changes life trajectories at scale. By combining broad access, unmatched affordability and strong economic returns, the CSU lifts hundreds of thousands of Californians every decade from modest means into the middle class and beyond.

Opening Doors

The CSU is California's primary on-ramp to higher education for low-income and first-generation students. Nearly half of its undergraduates receive Pell Grants, and more than one-third are the first in their families to attend college. The system's footprint across every region in the state means that its 460,000 students can earn a degree close to their home. In CollegeNET's 2024 Social Mobility Index, nine CSU campuses landed in the national top 20, with Cal State San Marcos ranked No. 2.¹ The most recent Wall Street Journal/College Pulse rankings tell a similar story, ranking seven CSUs among the nation's top 10 universities for "Upward Mobility," with Cal State LA ranked first, Cal State San Bernardino at second and Stanislaus State at fourth.²

Nearly
85% of aid
applicants received
assistance during the 2023-24
academic year, and
61% paid no tuition
because of grants and waivers.

The result is that
63% of the spring 2023
graduating class finished
debt-free

¹ <https://collegenet.com/company/news/cuny-baruch-california-state-san-marcos-cuny-lehman-lead-the-11th-annual-social-mobility-index-smi>

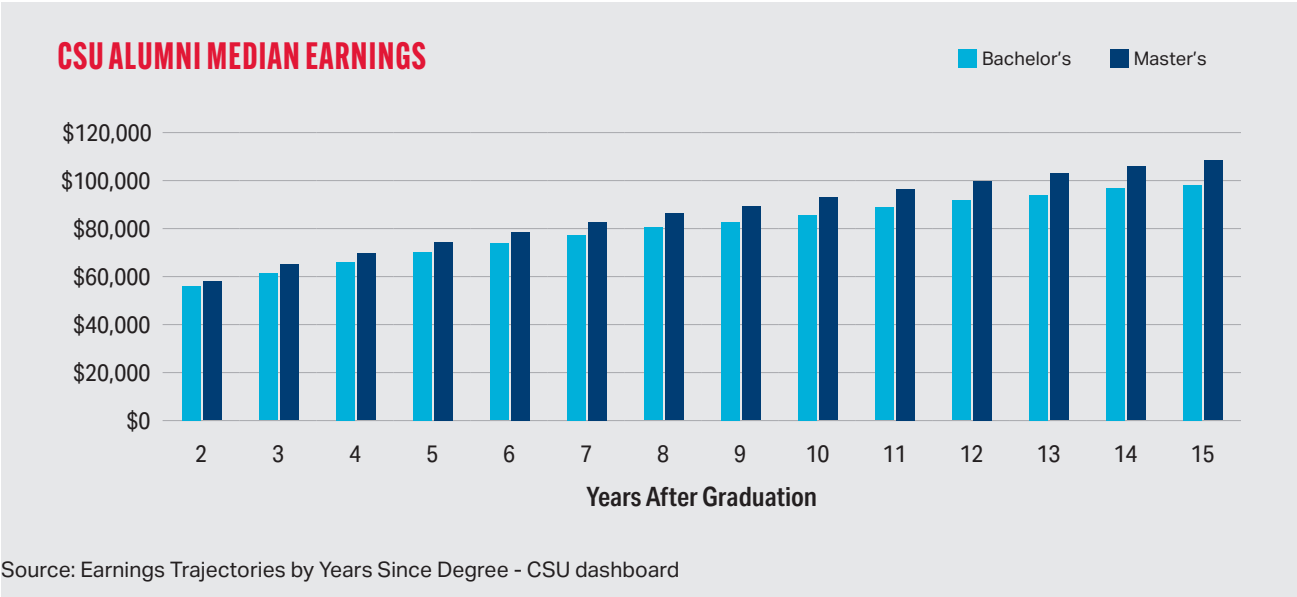
² <https://www.calstate.edu/csu-system/news/Pages/CSU-Tops-National-Rankings-for-Value-and-Opportunity.aspx>

Keeping College Affordable

In 2025, CSU tuition was \$6,084 for a full-time California undergraduate, among the lowest of any four-year public system in the nation. Extensive financial aid further reduces the cost of attendance. Nearly 85% of aid applicants received assistance during the 2023-24 academic year, and 61% paid no tuition because of grants and waivers. The result is that 63% of the spring 2023 graduating class finished debt-free. Students who did borrow owed an average \$17,346, well below state and national norms. Washington Monthly's 2024 Best Bang for the Buck—West list placed all CSU campuses in the top 100, emphasizing the CSU's unrivaled value proposition.¹

Launching Careers—and Earnings

Learning at the CSU is hands-on: more than 80% of recent bachelor's graduates completed research, internships or other experiential learning, building career-ready resumes before commencement. The 4.3-million-strong alumni network spans every California industry, opening doors to mentorship, internships and first jobs for current students. Median earnings for alumni a decade after graduation are more than \$88,000. That figure surges to \$121,000 in engineering and \$133,000 in computer science,² delivering a robust return on the average \$6,084 annual tuition.³



42

¹ <https://washingtonmonthly.com/2024-college-guide/best-bang-for-the-buck-rankings-west>
² CSU Alumni Earnings Trajectory by Years Since Degree—Workbook: Labor Market Outcomes
³ ICF estimate based on CSU 2024-2025 Cost of Attendance (COA) data

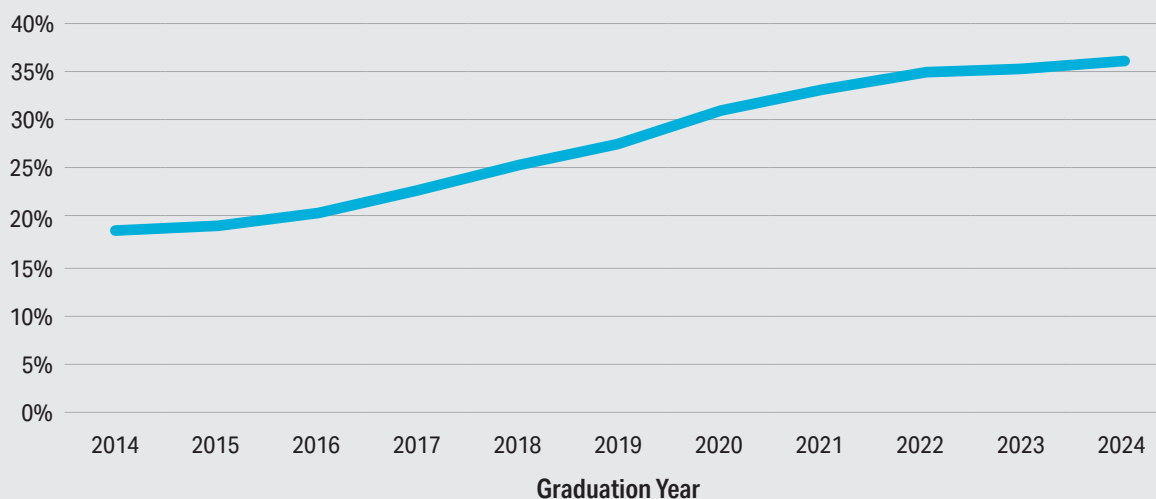
STUDENT-FOCUSED INITIATIVES: TARGETING STUDENT SUCCESS

The CSU has launched a number of initiatives to ensure that all students, regardless of their background, have the same opportunities to benefit from the transformative power of a CSU degree.

Record Completion Gains

Since its launch in 2015, the CSU's Graduation Initiative 2025 has sought to increase graduation rates for all CSU students while eliminating opportunity and achievement gaps. The initiative has brought completion rates to all-time highs and continues to focus on narrowing equity gaps between underserved students and their peers. Four-year completion rates for first-time students have nearly doubled from 19% to 36% for the 2020 cohort, and two-year graduation rates for community college transfers are up to 44%.¹

FOUR-YEAR GRADUATION RATE, 2014-2024



Source: Graduation and Continuation Rates - CSU dashboard

Toward a New Framework for Student Success

As the CSU continues to process the results from Graduation Initiative 2025, it has reimagined a bold vision of student success through its Year of Engagement process. This project is harnessing the collective wisdom of more than 1 million CSU community members to identify promising practices, assess the effectiveness of previous initiatives and recognize areas for additional improvement. The Year of Engagement has the twin goals of 1) redefining student success beyond traditional metrics such as graduation rates to encompass broader outcomes such as career readiness, graduate school enrollment and personal development and 2) developing a new Student Success Framework that addresses the evolving needs of CSU's diverse student body.²

¹ <https://www.calstate.edu/impact-of-the-csu/government/Advocacy-and-State-Relations/legislative-reports1/state-performance-measures-signed.pdf>

² <https://www.calstate.edu/Strategic-Planning-for-the-CSU/Documents/Year-of-Engagement-Reimagining-Student-Success.pdf>

Key elements of the Student Success Framework¹ include:

1. **Academic Readiness:** Collaborating with families and community organizations to prepare students for college-level work.
2. **Personalized Journeys:** Tailoring support to individual student needs, helping them define and achieve their academic and career goals.
3. **Post-degree Opportunities:** Ensuring graduates have clear pathways to employment or further education.
4. **Experiential Learning:** Providing hands-on learning experiences to enhance practical skills.
5. **Equitable Teaching and Learning Environments:** Fostering inclusive classrooms that support diverse learning styles and backgrounds.
6. **Affordability:** Reducing financial barriers to make education accessible to all students.

By combining evidence-based student success strategies with strong industry partnerships and an unwavering commitment to affordability, the CSU converts educational opportunity into economic

opportunity at scale. The result is a system that propels students to graduate faster, earn more, and elevate entire communities to prove that student success, career advancement, and social mobility are mutually reinforcing hallmarks of a mission-driven public university.



Experiential learning at Cal Poly Humboldt.

MEETING INDUSTRY WORKFORCE NEEDS

California is home to some of the world's most dynamic industries, from technology and health care to agriculture and entertainment. These sectors require a highly skilled, adaptable workforce. Employers across the state consistently cite workforce readiness as a top priority, emphasizing the need for graduates who not only have the necessary technical skills but also are career ready. As the largest public four-year university system in the nation, the CSU is uniquely positioned to support California's economic competitiveness through workforce development. This mission is embedded in its founding charter and continues to guide its strategic priorities.

**125,000
BACHELOR'S
DEGREES**

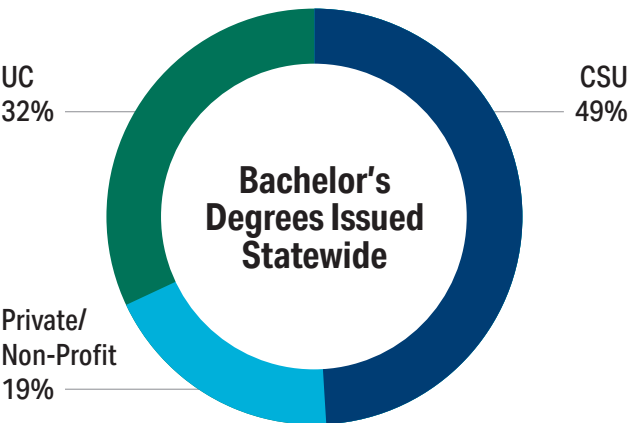
Awarded in 2023-24
48% of all degrees
awarded in CA

¹ <https://www.calstate.edu/Strategic-Planning-for-the-CSU/Documents/Year-of-Engagement-Reimagining-Student-Success.pdf>

WORKFORCE DEVELOPMENT AT SCALE

The CSU educates nearly half a million students annually and produces more than 125,000 job-ready graduates each year. In fact, CSU graduates account for nearly half of the bachelor's degrees awarded in California.¹ Notably, the CSU's impact is deeply rooted in communities across the state, with 94% of its undergraduates originating from California and the vast majority staying in-state after graduation. This strong regional retention significantly bolsters local talent pipelines and supports the long-term vitality of California's economy.

Over the past several years, the CSU has continued to deliver on its promise to educate and prepare California's workforce. Despite total student enrollment declining slightly from a high of about 486,000 students in 2020 and 2021 to around 450,000 in 2024, the CSU has steadily increased the number of degrees that it awards. In fact, degrees conferred rose from approximately 119,000 in 2016-17 to just over 125,000 in 2023-24,² with more students graduating and entering the workforce even as overall enrollment dipped. During the past 10 years, the CSU has awarded over 1 million bachelor's degrees and more than 200,000 graduate degrees.



Sources: CSU data for 2023-24 academic year. Lightcast for UC and other data.

THE CSU APPROACH

The CSU's approach to education is both academic and applied. The university system not only teaches critical thinking and technical skills but also fosters direct connections between students and industry. Through internships, industry partnerships and career-focused curricula, CSU campuses serve as bridges between classroom learning and real-world application. The core elements of the CSU's approach to education and workforce development are described below.

CSU Degrees Issued Over the Last Decade

1,032,534

**Bachelor's degrees
awarded**

202,505

**Graduate degrees
awarded**

NOTE: CSU degrees awarded from academic year 2014-15 through academic year 2023-24.

Skills-Based Learning Prepares Job-Ready Students.

CSU programs in nursing, engineering, business and education, to name a few fields, are designed to produce professionals prepared to meet the demands of California's industries. Students gain hands-on experience, whether it's mastering data analytics in business courses or developing clinical competencies in health sciences. This approach ensures that graduates not only understand theory but also can apply it in practical, impactful ways.

¹ ICF estimated based on Data from CSU Degrees Issued 2023-24; Lightcast 2023 Degree Completions in California

² CSU Degrees Issued by College Year
<https://tableau.calstate.edu/views/CSUDegreesIssued/CSUDegreesIssued?%3Aembed=y&%3Aiid=1&%3AisGuestRedirectFromVizportal=y>

Regional Campuses Support the State's Regions with Targeted Curricula

Each CSU tailors its academic offerings to reflect the economic landscape of its region. In the Central Valley, campuses emphasize agriculture and water management. In the Bay Area, programs focus on tech and innovation. Students are trained for the jobs most in demand in their communities, supporting both local economies and statewide growth.

Industry Collaboration Ensures Skills Alignment

CSUs partner with industry leaders to align academic programs with workforce needs. For example, Cal State Long Beach collaborates with aerospace companies to shape its engineering curriculum, and Cal State San Marcos works with biotech firms to train students on the latest lab technologies. These partnerships help keep CSU programs current and relevant, while opening doors for student mentorship and employment.

Internships and Apprenticeships Enable Career Advancement

Internships are a cornerstone of the CSU experience. Partnerships with thousands of employers across the state offer CSU students valuable on-the-job experience, a competitive edge in the job market and often full-time employment. For instance, Cal State Fullerton's business students regularly intern with Fortune 500 companies in Orange County. The CSU is expanding its role in apprenticeship programs, particularly in fields such as education, health care and skilled trades. This "earn-and-learn" model is reflected in CSU Bakersfield's arrangement with local hospitals to offer nursing apprenticeships that address regional health care shortages while building student expertise.

Student Research Creates a More Dynamic Workforce.

CSU faculty and students engage in applied research that directly supports workforce development. From studying sustainable farming practices to developing new cybersecurity protocols, this research not only advances knowledge but also builds student skills in leadership, problem-solving and innovation.

SERVING CALIFORNIA'S KEY INDUSTRIES

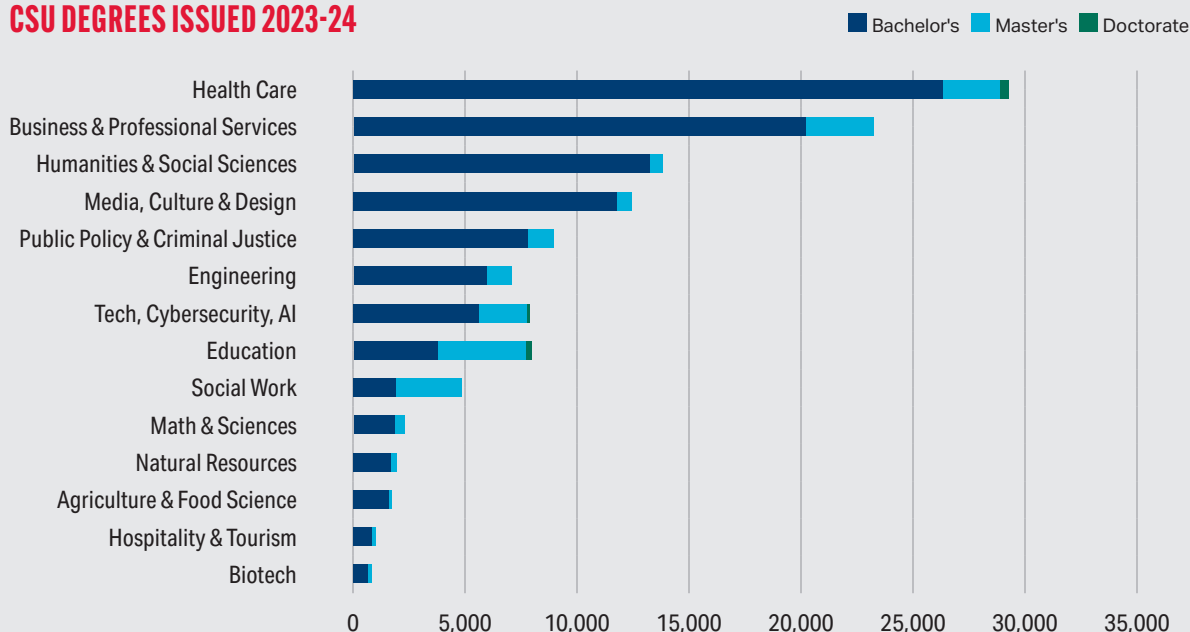
The CSU is a critical workforce engine for key economic sectors in California. During the 2023-24 academic year, the CSU awarded over 29,000 degrees in health care, 23,000 degrees in business and professional services and nearly 14,000 degrees in the humanities and social sciences.¹ Yet, these impressive numbers don't tell the full story of how vital the CSU is to sustaining the state's skill pipeline. The CSU produces the majority of the state's graduates in high-demand fields such as agriculture (78%), public policy and criminal justice (46%), media, culture and design (49%), and health and medicine (46%).² A look at specific subsectors within those industries reveals a more powerful impact.

The sections that follow focus on seven key industry sectors where the CSU has a significant impact on the state's workforce. Each section profiles an industry, describing its importance to the state economy and current workforce trends. It then summarizes how CSU degree programs, centers and institutes support the competitiveness of those industries through both campus activities and external partnerships to prepare students to meet industry needs.

¹ ICF estimate based on data of 2023-24 CSU degrees issued.

² ICF estimate based on data of 2023-24 CSU degrees issued. Lightcast 2023 Degree Completions in California

CSU DEGREES ISSUED 2023-24



Source: ICF estimate based on data of 2023-24 CSU degrees issued.

EDUCATION



Over 1 million educators work in California, mostly in California's pre-K-12 school districts. They earn over \$100 billion per year and are a vital part of the state's workforce.¹ Despite ongoing efforts to strengthen the educator pipeline, California continues to face critical teacher shortages in several high-need subject areas. Special education remains the most acute area of need, with districts across the state struggling to recruit and retain fully credentialed teachers to support students

with disabilities. In mathematics, a 15% increase in credentials issued in the most recent academic year still falls short of demand. Shortages are also pronounced in science, particularly in specialized fields like physics and chemistry. The growing population of English learners has intensified the need for teachers trained in bilingual education and English Language Development (ELD). Additionally, as California expands its commitment to college and career readiness, the need for Career Technical Education (CTE) teachers, especially in high-growth sectors such as health sciences, engineering and information technology, is rising.²

These persistent gaps highlight the importance of targeted recruitment, specialized training pathways and sustained support for educators in these essential fields. These shortages are most acute in rural and high-poverty urban districts, where recruitment and retention are challenging. While the state has made progress in credentialing more teachers in these areas, the gap between supply and demand remains significant.

¹ Lightcast industry LMI

² Teacher Supply in California 2022-23 A Report to the Legislature

KEY CSU ACTIVITIES

Across undergraduate, master's and credentialing programs, the CSU prepares over 7,700 new teachers annually. A wide range of credentialing pathways are offered, including multiple subject, single subject, education specialists, and bilingual authorization. During 2023-24, the CSU prepared students to receive 3,446 new multiple subject credentials—the equivalent of 37% of all such credentials issued in California.¹ Additionally, the CSU awarded 1,098 master's in education degrees, more than a quarter of such degrees awarded in the state.²

Degree Programs:

Education certification and degree programs are offered across almost all CSU campuses, with flexible formats including full-time, part-time, and online options. During the 2023-24 academic year, 39,772 CSU students were enrolled in education-related disciplines:

- **1,109 of these students were enrolled in special education programs,**
- **109 in math and STEM,**
- **213 in English learning,**
- **11,214 in early childhood education,**
- **1,773 in educational leadership, and**
- **25,354 in other general education programs.**³

In addition to campus-based learning, the CSU offers pathways such as CalStateTEACH, a fully online credentialing program that expands access to candidates in rural and underserved regions, with nearly 1,000 students enrolled in 2023-24.⁴

CREDENTIALING PATHWAYS

- **Integrated Teacher Education program (ITEP): Combines a bachelor's degree and teaching credential in a streamlined four-year program.**
- **Post-Baccalaureate: Credential programs for those who have a bachelor's degree.**
- **Intern Programs: Allow candidates to work as teachers while they complete credential requirements.**

CalStateTEACH is the CSU system's fully online teacher preparation program, designed to expand access to credentialing for aspiring educators across all counties in California. It offers a Preliminary Multiple Subject Credential, qualifying candidates to teach in general education classrooms, particularly at the elementary level.

This award-winning program is recognized as an Apple Distinguished Program for its innovative use of technology and commitment to educational excellence. CalStateTEACH features an integrated curriculum that includes coursework in classroom management, learning theory, content pedagogy, educational technology, and even animation and coding. The curriculum is aligned with the California Teaching Performance Expectations (TPEs) and the California Standards for the Teaching Profession (CSTP), ensuring that candidates are well-prepared for the demands of 21st-century classrooms.

Although CalStateTEACH does not operate from a physical campus, it fosters a strong online learning community among candidates, faculty, and regional directors. The program is especially notable for its Mobile Learning Initiative, which helps bridge the digital divide in public schools and supports equitable access to teacher preparation.

¹ Teacher Supply: Credentials – <https://www.ctc.ca.gov/commission/reports/data/edu-supl-creds>

² Data from CSU Degrees Issued 2023-24; Lightcast 2023 Degree Completions in California

³ ICF estimate based on CSU 2023-24 enrollment data

⁴ CSU 2023-24 enrollment data – Enrollment Summary; Headcount

Centers and Institutes:

The CSU supports educator preparation through specialized centers and programs, professional development and equity in education. These centers are coordinated through the CSU's Department of Educator and Leadership Programs and serve both systemwide and campus-specific initiatives.

- **The Center for Transformational Educator Preparation Programs (CTEPP)** recruits, prepares and retains Black, Indigenous, and teachers of color, fostering equity-centered practices across CSU campuses.
- **The Center for the Advancement of Reading and Writing (CAR/W)** enhances literacy instruction by supporting the development of reading specialists and effective classroom teachers.
- **Addressing systemic inequities in pre-K-12 education, the Center to Close the Opportunity Gap (CCOG)** facilitates regional collaborations aimed at improving academic outcomes for underserved students.
- **The Educator Quality Center** provides data-driven tools and resources to support continuous improvement in teacher preparation programs.
- **The California Academic Partnership Program (CAPP)** strengthens high school academic quality and prepares students for college success and supports teacher development.
- **The Center for the Advancement of Instruction in Quantitative Reasoning (CAIQR)** supports high-quality math instruction in high schools and colleges and enhances teacher preparation in quantitative reasoning. CAIQR has two primary focus areas. First, it offers professional development for educators at the secondary level related to mathematics/quantitative reasoning and provides support to pre-K-12 partners in the development and

adoption of 12th grade classes in quantitative reasoning that position students from all backgrounds for success in the CSU. Secondly, CAIQR provides professional learning for faculty at the postsecondary level related to mathematics/quantitative reasoning.

The CSU's network of educator preparation centers provides continuing professional development and curriculum support to K-12 educators. These centers collaborate directly with school districts to co-develop instructional materials, offer workshops and implement equity-focused teaching strategies. Collectively, these centers exemplify the CSU's commitment to producing a diverse, effective and equity-minded educator workforce aligned with California's evolving educational needs.

In 2024, over 9,600 students were enrolled in the CSU's teacher credential programs.³⁴ As part of their preparation, each student completes in excess of 600 hours of clinical practice in pre-K-12 schools providing essential classroom support in most cases at no cost to districts. This amounts to more than 5.7 million hours of in-kind service, valued at over \$89 million.³⁵ Overburdened schools, particularly in rural and high-poverty districts, benefit immediately from consistent, high-quality support and get a preview of future hires. The aspiring teachers don't merely observe. They actively teach, tutor and manage classrooms. Beyond this, many CSU students serve either as teachers of record or school counselors through paid residency or internship pathways, directly addressing staffing shortages and strengthening educational outcomes in underserved areas.

IMPACT SPOTLIGHT

External Partnerships Bolster District Capacity

District partnerships, service contributions, and institutional supports also strengthen the capacity, equity and effectiveness of California's school districts. The CSU's deep partnerships with over 100 school districts per campus, such as Fresno State's reach across the Central Valley and Cal

³⁴ CSU Credential Enrollment Trends – Enrollment Over time: Headcount

³⁵ Calculation based on assumed modest hourly rate of \$16.50

State Long Beach's collaboration with more than 80 urban districts creates a robust and reliable teacher pipeline that directly addresses local workforce needs. These partnerships are particularly impactful in high-need areas such as special education, bilingual education and STEM. The CSU's residency programs exemplify how localized training models can empower community members to become credentialed teachers. Besides filling vacancies, residents also bring cultural and linguistic relevance to their classrooms, enhancing student engagement and learning outcomes.

Northern California Educational Leadership Consortium: Advancing Equity and Leadership in Northern California's Rural Schools

The Northern California Educational Leadership Consortium (NorCal ELC) is a collaborative initiative serving the 11 northernmost counties of California—an expansive, predominantly rural region comparable in size to Ohio. Formed in 2020 as part of the 21st Century California School Leadership Academy (21CSLA), NorCal ELC is a partnership among Chico State, Cal Poly Humboldt, Chico Unified School District and Abeo School Change, LLC. These partners bring deep expertise in educator preparation, school leadership and professional learning, and are committed to equity-centered school improvement. NorCal ELC supports teams of educators in identifying and addressing local equity challenges through structured, evidence-based continuous improvement cycles, coaching and collaborative learning.

The consortium's effect is both broad and deep. As of May 2023, NorCal ELC had served 41,991 students, 556 educators and 104 schools across the Shasta region. Its model emphasizes transformational change through localized Problems of Practice (PoPs), such as reducing exclusionary discipline, increasing civic engagement and improving reading instruction. For example, Oroville High implemented a three-tier system to minimize suspensions, while Chico Unified launched a program enabling students to earn the California State Seal of Civic Engagement.

Chrysalis Charter School lowered special education referrals by applying the Science of Reading and data-driven instruction. These examples illustrate how NorCal ELC fosters leadership development, equity and regional collaboration—empowering educators to create lasting student-centered change in even the most remote communities.

Sonoma State Residency Program: Cultivating Educational Leaders From Within

The Sonoma State Residency program is a collaboration of Sonoma State University, Mendocino College, the Round Valley Unified School District and the Redwood Coast K–16 Educational Collaborative. It aims to grow teachers from within the community, engaging individuals who already understand the local culture, language and needs.

KEY FEATURES AND IMPACT

- **Cultural Preservation and Relevance:** Residency students are actively involved in preserving the Yuki and Wailaki languages from the Round Valley Indian Tribes, working closely with school leadership to support students and reinforce cultural identity.
- **Local Access to Education:** Higher education classes are being offered in Covelo, a small rural town in Mendocino County, reducing barriers to access. Students can attend classes locally and travel together to nearby Ukiah for additional coursework.
- **Community Empowerment:** The program empowers local residents who grew up in Covelo to train to become teachers, transforming residents into leaders and role models.
- **Workforce Development:** The residency ensures that credentialed teachers are placed in local classrooms, addressing long-standing shortages and improving educational continuity for students.

This residency is about cultivating leaders deeply embedded in and committed to their communities. By aligning educational pathways with local strengths and needs, the program fosters a culturally sustaining pedagogy and builds a resilient, representative educator workforce.

HOSPITALITY



From Disneyland to the redwoods, California offers tourists, nationally and globally, natural beauty and a wide variety of entertainment venues, restaurants and business destinations. The state's tourism and hospitality sector employs over 413,000 workers and generates over \$61.5 billion in gross state product. After a decline in 2020 because of the COVID-19 pandemic, the industry has been growing; revenue is up \$13 billion since prepandemic 2019 levels.¹ Employees in this field work in hotels, resorts, restaurants, support special events (conventions, conferences, weddings or meetings) as well as the tourism and travel industry more broadly. Nevertheless, structural and economic challenges threaten California tourism's long-term sustainability. High turnover and low wage perceptions hinder workforce retention. Moreover, the sector faces the industry's increasing demands for skills in sustainability, digital engagement and analytics that are outpacing the current capacity of educational institutions to scale responsive training programs.

KEY CSU ACTIVITIES

With over 850 graduates in 2024, the CSU produced the majority (51%) of all hospitality graduates across the state and an even more significant 67% of all hospitality bachelor's degrees.² They are roughly divided between recreation and tourism programs and hospitality and tourism programs. These remarkable numbers help quantify how much the state's tourism sector relies on the robust training of CSU students to not only supply the labor, but also its leadership.

Degree Programs:

The CSU offers undergraduate and graduate degrees (even a Master of Business Administration in wine at Sonoma State) in hospitality or tourism-related degree programs at 15 campuses. The undergraduate program in Hospitality & Tourism Management focuses on four areas: hotel or restaurant management, meetings and events, or Tribal gaming. The undergraduate program in Recreation & Tourism Management emphasizes sustainable tourism management, outdoor resource management and recreation systems management. Cal Poly Pomona, Cal Poly San Luis Obispo and San Diego State house robust hospitality programs, known in the industry for rigor and emphasis on industry alignment and practical experience. In 2023-24, the CSU enrolled 2,632 students in hospitality-related degrees, with 1,439 students focused on recreation and tourism, and 1,193 focused on hospitality and tourism.³

Centers and Institutes:

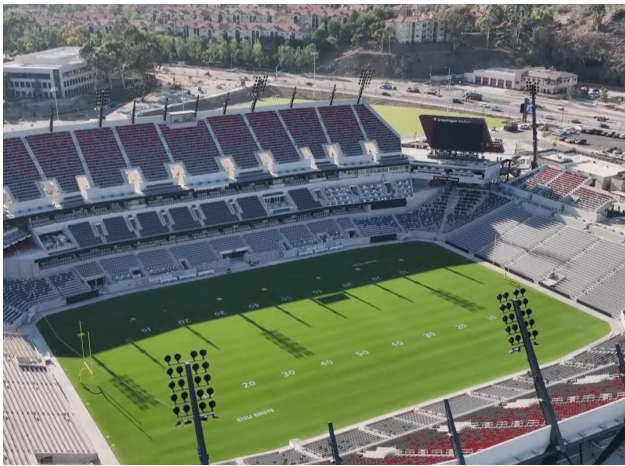
The Center for Hospitality and Tourism Research (CHTR) at San Diego State serves as a dynamic academic hub that bridges scholarly inquiry with industry application in hospitality, tourism, and event management. Housed within the [L. Robert Payne School of Hospitality and Tourism Management](#), the center advances both student learning and industry innovation. CHTR integrates students into the research process, offering them opportunities to collaborate with faculty on industry-sponsored projects and conduct market

¹ Lightcast industry LMI

² ICF estimate based on data of 2023-24 CSU degrees issued. Lightcast 2023 Degree Completions in California

³ ICF estimated based on CSU 2023-24 enrollment data

and operational analyses for real-world clients. The center fosters a practice-based pedagogy that aligns with the CSU's broader commitment to applied learning. CHTR maintains strong ties with a wide range of industry leaders, including Marriott International, Hilton Hotels & Resorts, San Diego Tourism Authority, Sycuan Band of the Kumeyaay Nation, event planning firms and convention centers, and local and regional restaurant groups. The CSU develops demand-side curricula in partnership with local employers, ensuring that students graduate with skills directly applicable to the job market.



Campus Events Snapshot: SDSU

One example of the CSU's public venues impact is San Diego State's Snapdragon Stadium, a multipurpose stadium owned by the campus. This stadium has hosted 350 events in a year, welcoming 2.6 million people. The stadium has been used not only for SDSU athletics such as football, but also for professional soccer matches, concerts, festivals, and even Monster Jam and Supercross (monster truck and motor competitions).

Beyond training the state's hospitality workers and leaders, the CSU contributes programming and infrastructure that drive economic and community impact. Campus venues serve as cultural and economic hubs, where hundreds of public events—ranging from performing arts and athletic competitions to conferences, exhibitions and community programs—are held each year. They attract millions of visitors to California, who generate significant regional spending on lodging, dining, transportation and retail as well as support jobs and small businesses. In addition, CSU public venues such as theaters, galleries and sports facilities enrich regional quality of life and contribute to the state's broader economic vitality.

IMPACT SPOTLIGHT

SDSU's Global Passport to Hospitality Leadership

The Robert Payne School of Hospitality and Tourism Management exemplifies a globally integrated experiential learning model that enhances academic learning. Students complete over 300 hours of paid, supervised work experience with leading hospitality organizations across Europe, Asia, Australia and Latin America. These paid placements significantly reduce financial barriers for students, enabling a more diverse range of participants. Partnerships with global brands such as Marriott International, Hilton Worldwide and Club Med offer students culturally immersive, industry-aligned training that provides both academic learning and career readiness. The program fosters cross-cultural fluency, leadership development and reflective integration into capstone projects and research, reinforcing the CSU's mission.

HEALTH CARE



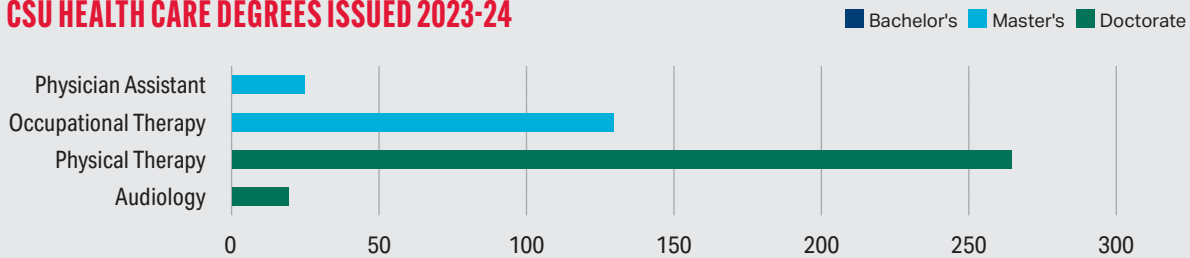
California's health care industry is the largest and the state's fastest growing. It employs nearly 3 million workers and added over 375,000 net jobs between 2020 and 2024. In 2024, employers were looking to fill roughly 468,200 jobs in fields such as nursing, caregiving and mental health. The industry generates \$305 billion in total gross state product (GSP) and over \$250 billion in labor earnings.¹

Health care is challenged to keep up with demand from California's aging population and labor shortages caused by retirements. With needs increasing for medical services, behavioral health support, nursing care, and public health infrastructure, the state requires a strong and steady source of trained, compassionate and community-connected professionals. The CSU is answering that call.

KEY CSU ACTIVITIES

More health care professionals are trained at the CSU than any other higher education system in the state. In 2024, more than half (55%) of all California-based health care graduates matriculated from a CSU campus.² Through real-world training and strong partnerships with health systems and public agencies, the CSU is preparing thousands of students each year to step directly into high-need, high-impact roles.

CSU HEALTH CARE DEGREES ISSUED 2023-24



Source: ICF estimate based on data of 2023-24 CSU degrees issued.

Health Care Degree Programs:

The CSU offers five core programs in nursing and health care, with nearly 28,000 students enrolled in the 2023-24 academic year.³ At 20 campuses, the CSU provides degrees from ADN/RN-to-BSN pathways to Doctor of Nursing Practice (DNP) and prepares students for clinical roles and nursing education leadership. In the 2023-24 academic year, the CSU issued nearly 3,300 nursing degrees, representing 88% of all CSU health care degrees issued that year.⁴

Following nursing, Doctor of Physical Therapy (DPT) degrees are the largest category of advanced health credentials awarded by the CSU. In 2024, CSU campuses conferred 265 DPT degrees, reflecting the growing demand for highly trained professionals in rehabilitative care.⁵ Offered at six CSU campuses, the DPT program delivers rigorous training in both clinical practice and research, preparing graduates to

¹ Lightcast industry LMI

² ICF estimated based on data from CSU Degrees Issued 2023-24

³ ICF estimated based on CSU 2023-24 enrollment data

⁴ ICF estimated based on data from CSU Degrees Issued 2023-24

⁵ CSU degrees issued 2023-24 data

meet the evolving needs of patients and health care systems. Occupational therapy, with 132 degrees awarded in 2024,¹ rounds out the top three graduate health programs. This program equips students with the skills to help individuals regain independence and improve quality of life through therapeutic interventions. Other emerging programs include the Doctor of Audiology (AuD) offered at San Diego State, San José State University, CSUN, and Cal State LA which awarded 35 degrees in 2024, and the Physician Assistant (PA) Master's Program, a joint offering from Cal State Monterey Bay and Stanislaus State, which graduated 27 students in the same year.² These programs reflect the CSU's commitment to expanding access to high-demand health professions and addressing workforce shortages across California.

Besides training future clinicians, the CSU is pushing its students to embrace innovation. Campuses such as Fresno State and Cal State Fullerton are home to centers for telehealth, gerontology, and health policy research, driving evidence-based solutions for 21st-century health challenges. The CSU has simulation centers and health labs at Cal State Long Beach, San José State and Cal State San Marcos and is tackling the most urgent topics in health care today by collaborating with local health departments and nonprofit organizations to conduct COVID-19 response, vaccination campaigns and mental health outreach. These opportunities ensure students are not just academically prepared, they're ready to make an immediate impact.

Diverse Talent for Diverse Communities

The CSU's student body reflects California's vibrant diversity. Over 60% of CSU students are from underrepresented communities, and many are the first in their families to attend college. This matters especially in health care, where cultural understanding, language proficiency, and community trust are critical to effective care. By supporting these students with targeted academic and financial aid programs, the CSU ensures a more inclusive health care workforce, one better equipped to address health disparities and improve outcomes across the state.

From the Central Valley to the urban centers of Los Angeles and the rural edges of Northern California, the California State University system is a force for health, hope, and equity. With a laser focus on community, collaboration, and workforce readiness, the CSU is preparing the caregivers, healers, and leaders California needs today and for decades to come. Whether it's through nursing, public health, allied health, or behavioral science, the CSU is helping shape a future where every Californian has access to the skilled, compassionate care they deserve.

The CSU issued nearly
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representing
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health care degrees
issued that year.

¹ CSU degrees issued 2023-24 data

² CSU degrees issued 2023-24 data

Deep Focus on California's Nursing Workforce:

The CSU advances health care education and workforce development through a network of specialized campus centers and institutes that integrate academic rigor with community engagement and clinical innovation.

- **Central California Center for Excellence in Nursing¹ at Fresno State addresses regional health disparities through workforce research and policy initiatives.**
- **Nursing simulation centers can be found across CSU campuses, including Cal State Fullerton, Cal State LA and Cal State San Marcos. These state-of-the-art centers provide immersive, high-fidelity clinical training environments that boost students' critical thinking and patient care competencies.**
- **The Valley Foundation School of Nursing at San José State fosters excellence in nursing education through strong community partnerships and a focus on public health.**

Collectively, these centers exemplify the CSU's commitment to preparing a diverse, practice-ready nursing workforce equipped to meet California's evolving health care needs.

Psychology Degree Programs:

Mental health is a critical aspect of health care, and mental health provider is a high-demand occupation. The CSU's many psychology-related degree programs prepare students for careers in mental health and applied psychology fields. Systemwide, 38,261 students were enrolled in psychology-related majors in the 2023-24 academic year.¹ Undergraduate students can pursue a bachelor of arts or bachelor of science in psychology at nearly all CSU campuses, with focus areas such as developmental psychology, cognitive psychology and biological psychology. Other degrees include a baccalaureate in Marriage and Family Therapy, a bachelor's in mental health counseling and a bachelor's in social and behavioral Science. More than 11,000 psychology-related degrees were awarded by the CSU in 2024.² Graduate offerings include master of arts and

master of science degrees that emphasize research, counseling and applied psychology. Specialized tracks include counseling psychology, industrial/organizational psychology and human factors psychology. In 2024, nearly 10,200 students were enrolled across these master's programs, with 300 receiving their master's degrees that year.³ Additionally, the CSU offers advanced doctoral training through Doctor of Psychology (Psy.D.) and doctoral programs in clinical psychology, often in collaboration with partner institutions, as well as Doctor of Education (Ed.D.) programs with psychology-related specializations at select campuses.

Moreover, several campuses host specialized centers and institutes that complement their psychology degree programs.

- **Fresno State operates the Fresno Family Counseling Center, which serves as a clinical training site for graduate students in counseling and psychology while providing accessible mental health services to the local community.**
- **At Chico State, the Rural SimCenter offers interdisciplinary simulation-based training that enhances students' competencies in behavioral health.**
- **Cal State East Bay's Center for Disability Justice Research engages psychology students in research focused on health equity and advocacy for individuals with disabilities.**
- **CSUN's Mitchell Family Counseling Clinic provides therapy services and serves as a practicum site for students in psychology and counseling programs.**
- **Additionally, San José State's Center for Applied Research on Human Services involves students in applied research addressing mental health, substance use and social service delivery.**

These centers integrate academic instruction with experiential learning and public service, thereby enhancing the professional readiness of CSU psychology students and contributing to the well-being of California's diverse communities.

¹ ICF estimate based on CSU enrollment data 2023-24

² ICF estimated based on data from CSU Degrees Issued 2023-24

³ ICF estimate based on CSU enrollment data 2023-24; ICF estimated based on CSU degrees issued 2023-2024 data

Innovative Industry Partnerships:

The CSU's health care programs prioritize real-world/hands-on learning. Partnerships with hospitals, clinics, community organizations and public health departments enable students to gain clinical experience and practical skills before graduation. For example, the collaboration between CSU Channel Islands and the Brain Injury Center of Ventura County allows students to contribute to community health initiatives while gaining experience. Similarly, the Healthcare Education Hub at Cal Poly Humboldt in collaboration with College of the Redwoods aims to address regional workforce needs. This state-of-the-art facility will serve as a training center for health care professionals such as nurses, EMTs and respiratory therapists. The paid internships offered through partnerships like the one between CSU Bakersfield's Public Health Program and Kern County Public Health allow students to gain practical experience and support themselves while earning a degree. The program makes education more accessible and fills a gap in the region's health care workforce. Lastly, the CSU provides behavioral health training through programs that place students into community-based counseling and support networks, benefiting students and community members. The CSU is also expanding programs in mental health, health equity and health informatics, positioning graduates at the forefront of emerging fields.

IMPACT SPOTLIGHT

The CSU and CDPH: Building Future Public Health Leaders

The CSU system has established a formal and impactful partnership with the California Department of Public Health (CDPH) as part of the state's strategic response to the COVID-19 pandemic and its broader public health workforce development goals. This collaboration is designed to provide CSU students, particularly those in public health disciplines, with paid internships that offer practical experience in state service. Students in the program, which is structured

across three annual cohorts (spring, summer and fall), work between 15 and 40 hours per week, depending on the term. Each intern is paired with a CDPH mentor, who fosters professional growth and career readiness. Annually, over 90 junior and senior CSU students participate, with a focus on supporting those facing economic hardship. The initiative not only enhances student preparedness but also streamlines recruitment pipelines for CDPH, allowing the department to directly train and integrate CSU students into its workforce. This collaboration exemplifies a scalable model for aligning higher education with public sector needs, ultimately contributing to a more diverse, competent and community-responsive public health workforce in California.

CVHPI: Advancing Equity Through Student-Led Research

The Central Valley Health Policy Institute (CVHPI) at Fresno State is an academic and community-based research center dedicated to advancing health equity and improving health care outcomes in California's San Joaquin Valley. Through its structured research internship program, CVHPI cultivates student expertise in both qualitative and quantitative methodologies, including literature reviews, data transcription and statistical analysis. These experiential learning opportunities outfit students with critical analytical skills and prepare them for careers in health policy, public health and related fields. Beyond student development, the institute contributes to the regional health policy landscape by generating data-driven insights that inform decision-making and resource allocation. The research conducted by interns and faculty supports efforts to reduce health disparities and promote equitable access to care across underserved communities in the Central Valley. CVHPI exemplifies the integration of academic scholarship with community-engaged research to address complex public health challenges.

MEDIA, CULTURE AND DESIGN



California is known worldwide as the epicenter for media production, the arts and entertainment. The media, culture and design industry employs nearly 500,000 people. Many of the key sectors, motion picture, media streaming and entertainment agents and managers have employment densities of between three to four times that of the national average, demonstrating quantitatively the state's competitive advantage in many sectors of this industry. The industry generates over \$202 billion in gross state product (GSP), up from \$122 billion in 2014. The size and growth of this industry propels the California economy.

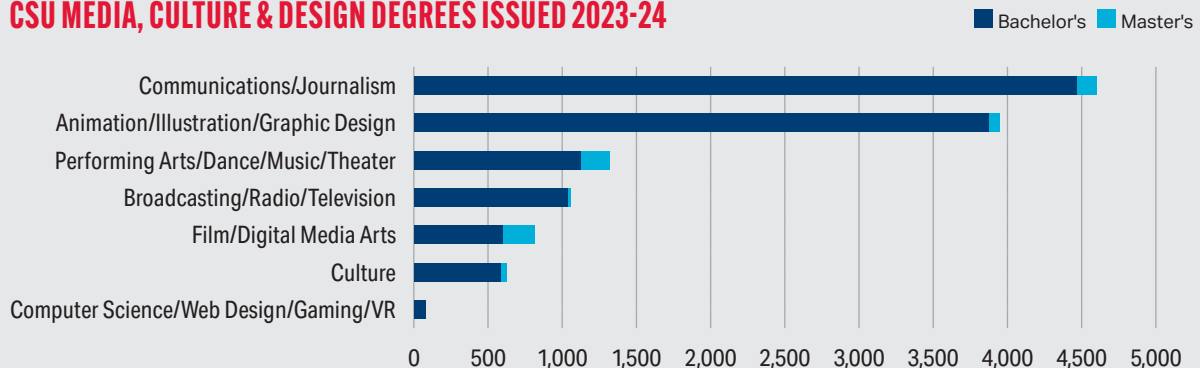
The industry and its specialty sectors continue to grow and demand new talent. In 2024, employers

were looking to fill roughly 32,800 jobs in industries including advertising, motion picture production, media streaming distribution and more.¹ Without trained and innovative workers, the state cannot maintain its leadership in this rapidly evolving sector.

KEY CSU ACTIVITIES

The CSU is a key contributor to California's entertainment workforce pipeline. The CSU awarded over 11,500 degrees in 2024 across media, culture and design-related fields, from animation and graphic design, to TV and radio broadcasting, journalism and performance arts. In fact, the CSU awarded nearly half (49%) of the total California degrees in these fields, and the majority (55%) of total bachelor's degrees across the state.² More communications and journalism degree-holders hail from CSUs than elsewhere in California; 65% of the state's bachelor's degrees are awarded by the CSU. Even more impressively, the CSU confers 93% of the state's degrees in broadcast media (radio and television).³ CSU alumni work across all entertainment sectors ranging from major studios (Disney, Netflix, Warner Bros.) to cutting-edge gaming and animation firms. Many alumni have been recognized as recent Emmy, Oscar and Grammy winners.

CSU MEDIA, CULTURE & DESIGN DEGREES ISSUED 2023-24



Source: ICF estimate based on data of 2023-24 CSU degrees issued.

¹ Lightcast industry LMI

² ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

⁵² ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

Degree Programs:

The CSU offers bachelor's and master's degree programs in media, design, performance arts and communications. Across related fields, 44,063 students studied at the CSU during the 2023-24 academic year.¹ As the chart on pg 57 shows, communications and animation/graphic design degree programs are the largest, accounting for 37% and 32%, respectively, for all media-related degrees the CSU conferred in 2024.²

The CSU's curriculum offerings directly align academic instruction with industry-identified workforce needs. One notable initiative is a production accounting course created in collaboration with Lionsgate. The studio not only sponsored the course but also provided the instructor. This course addresses a critical labor shortage in entertainment, particularly among professionals of color, as the current workforce ages out. Launched at CSUN in spring 2024, the course is envisioned as part of a three-course professional certificate program encompassing multiple media sectors. Another example of innovative curriculum is Cal State LA's three-course sequence in Game Show Production, funded by the Harry Friedman Foundation. These course offerings were developed in conjunction with the CSU Entertainment Alliance.

Centers and Institutes:

The CSU Entertainment Alliance (CSUEA) serves as a strategic initiative within the CSU to enhance student preparedness for careers in entertainment and media. The CSUEA's primary mission is to create connections and pathways; professional education regarding industry norms, expectations and practices; as well as creating a greater industry awareness of the diversity, talent and training of emerging CSU workers. Utilizing the CSUEA's strong network of industry relationships, the alliance provides outreach across California, giving students direct access and channels to top-level decision makers, key creatives and hiring professionals. CSUEA also incorporates training in job seeking skills such as resume building, interview tactics, and networking as well as in industry tips, tricks and expectations.

In 2024 the CSUEA relocated from its origin at San Francisco State to CSUN, home to the CSU flagship film training program, the Mike Curb College's CTVA (Cinema and Television Arts) program. Since CSUEA's arrival at CSUN, the alliance's advisory council members—including Allison Frenzel, Entertainment Equity Alliance, AME Industry Sector and Youth Apprenticeship Lead for California Department of Education—and industry insiders have noted CSUEA's increased industry presence.

The CSUEA utilizes the deep relationships of its highly regarded and well-placed industry advisory council. By facilitating access to industry-informed curriculum development, funding for media-related projects, and experiential learning opportunities such as internships and mentorships, the CSUEA strengthens the practical competencies of students. Moreover, the alliance's partnerships with major entertainment corporations and trade associations gives students critical exposure to industry standards and networks, while the CSUEA's commitment to inclusion supports the cultivation of a representative talent pipeline.

IMPACT SPOTLIGHT

Bridging Classrooms and Soundstages: Strategic Partnerships Advancing Equity and Excellence in California's Entertainment Workforce

Through robust collaborations with high schools, community colleges and nonprofit organizations, CSUEA fosters early exposure to media careers and supports pathways into higher education and industry roles. For example, its partnership with the Roybal Film and Television Magnet High School sponsored by the Entertainment Industry Foundation and the CAA Foundation includes visit days to CSUN, peer mentorship on college applications and a hands-on production assistant program that integrates high school students into CSUN thesis film shoots. This initiative is set to expand to other CSUs and serves as a scalable model for national replication. Similarly, CSUEA's collaboration with the Dakar Foundation and HartBeat Academy supports workforce development and apprenticeship programs for

¹ ICF estimate based on 2023-24 CSU enrollment data

² ICF estimated based on Data from CSU Degrees Issued 2023-24

college and community college students. CSUEA's involvement with the Entertainment Equity Alliance (EEA) includes participation in large-scale events such as the Careers in Entertainment Expo, which engaged over 2,000 students from 67 schools in professional development activities.

Industry partnerships further amplify CSUEA's impact. Adobe, Dolby and Lionsgate are among the key partners contributing to student success through event sponsorships, curriculum development and financial support. Lionsgate funded the production accounting curriculum and held a screening of student work. Starz's #TakeTheLead initiative co-funded a Finishing Funds grant that supported over a dozen student films by underrepresented creators. CSUEA also collaborates with industry leaders including Netflix, DreamWorks Animation, A24 and the Sundance Institute to host career panels, workshops and masterclasses on topics ranging from resume writing and financial literacy to editing and personal branding. These events, many of which are archived on CSUEA's YouTube channel, provide continuing access to industry insights and mentorship. Resources such as free subscriptions to MasterClass and Backstage are also available. Collectively, these partnerships enrich the educational experience and cultivate a more inclusive and industry-ready talent pipeline for California's dynamic entertainment sector.

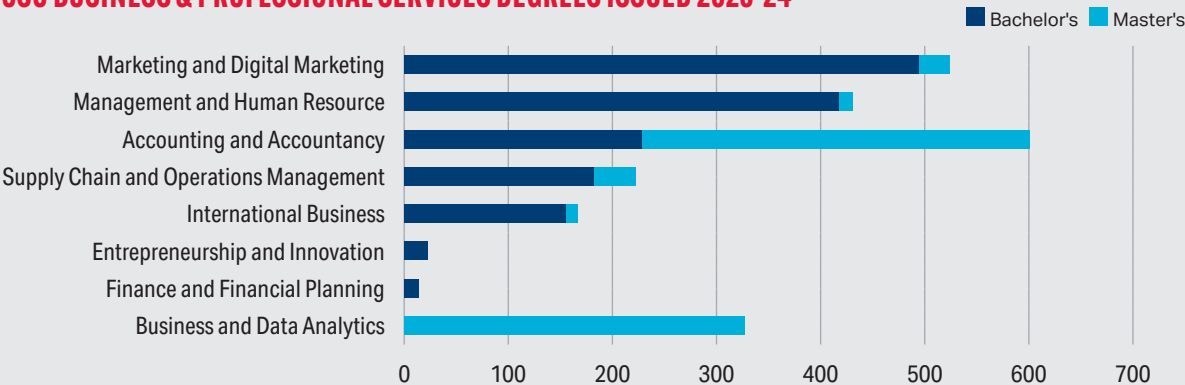
BUSINESS & PROFESSIONAL SERVICES



Business and professional services provide the foundation for the state's industries and organizations. The industry drives innovation and global competitiveness, and it enables other industries in the state such as health care, manufacturing and finance to function efficiently and grow. The California business services sector employs more than 1.4 million workers, engaged in project management, accounting, finance, marketing and consulting. The industry generates over \$386 billion in gross state product (GSP) and has more than doubled its revenue over the past 10 years.

A steady stream of talented, skilled workers is needed to sustain this growth. In 2024, nearly 13,000 employers across the state were hiring, looking to fill nearly 600,500 job openings.¹

CSU BUSINESS & PROFESSIONAL SERVICES DEGREES ISSUED 2023-24



Source: ICF estimate based on Data of 2023-24 CSU degrees issued.

¹ Lightcast industry LMI

KEY CSU ACTIVITIES

The CSU awarded over 20,000 bachelor's and more than 3,000 master's degrees in 2024 in fields that contribute to the state's business and professional services sectors. Of those, 88% of degrees conferred were in general business administration.¹ In fact, the CSU awarded over 18,000 general business administration bachelor's degrees in 2024—contributing nearly three-quarters (73%) of the state's undergraduates—and 2,058 master's degrees, accounting for a quarter of the state's master's graduates.²

Degree Programs:

The CSU offers an array of degree programs in business and professional services designed to prepare students for leadership roles in diverse sectors of the economy. These programs span undergraduate, graduate and certificate levels and include generalist and specialized tracks. The specialized business degrees, which do not include general business administration degrees, shown in the chart on pg 59 illustrates the size of each program.

Centers and Institutes:

There are 16 campus-based centers related to business and professional services across 6 campuses: CSU Bakersfield, CSU Channel Islands, Chico State, Cal State East Bay, Fresno State and CSUN. Student engagement in these centers produces measurable gains in both academic development and career readiness, with specific centers playing a pivotal role in these outcomes.

- At CSU Bakersfield, the Business Research and Education Center connects students with local organizations, offering opportunities to conduct applied research that sharpens their analytical and consulting skills. Meanwhile, the Center for Economic Education and Research extends the university's reach into the community by leading K-12 outreach and student-led workshops focused on financial literacy and economic principles.

- At CSU Channel Islands, the Entrepreneurship & Small Business Institute empowers students to work with local startups and small businesses. They help craft business plans, develop marketing strategies and conduct feasibility studies, developing skills essential for future entrepreneurs and consultants. Additionally, the Institute for Global Economic Research immerses students in the analysis of international trade and economic policy, often in collaboration with regional economic development agencies.
- At Chico State, the Center for Entrepreneurship energizes the campus with its annual Business Concept Competition, where students pitch startup ideas to local investors and business leaders, gaining real-world feedback and mentorship. Meanwhile, the Center for Enterprise Systems and Information Research provides hands-on training with enterprise software like SAP, equipping students with the technical skills needed for careers in IT consulting and systems management. Complementing this, the SAP University Competence Center is one of only a handful worldwide and offers advanced instruction in enterprise resource planning systems used by Fortune 500 companies, positioning Chico State students at the forefront of global business technology.
- At Cal State East Bay, the Center for Economic Education engages students in developing and delivering economic learning materials to local schools and community groups, fostering both teaching skills and civic engagement. The Smith Center for Private Enterprise Studies promotes student research and events focused on entrepreneurship, free enterprise and economic policy, cultivating a deeper understanding of market-driven solutions and innovation.

¹ ICF estimated based on Data from CSU Degrees Issued 2023-24

² ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

- At Fresno State, The Lyles Center for Innovation and Entrepreneurship operates a student business incubator and runs the Pay It Forward mentoring program, connecting aspiring entrepreneurs with successful alumni for guidance and inspiration. The Institute for Family Business offers students the opportunity to consult with multigenerational, family-owned enterprises across the Central Valley, providing hands-on experience in navigating the unique dynamics of family-run operations. Complementing these efforts, the University Business Center hosts professional development workshops and certificate programs in areas such as project management, human resources and nonprofit leadership, equipping students and community members alike with the tools to lead and succeed in today's economy.
- At CSUN, the Wells Fargo Center for Small Business & Entrepreneurship offers students the chance to consult with local small businesses, with a focus on supporting underserved communities. At the Center for Risk Management and Insurance, students access industry-recognized certifications and internships that prepare them for careers in insurance, risk analysis and financial services. And finally, the Bookstein Institute for Higher Education in Taxation is home to the widely respected Volunteer Income Tax Assistance program, where students prepare tax returns for low-income individuals under faculty supervision, providing an experience that builds both technical expertise and client service skills.

Together, these centers empower students to apply their knowledge in meaningful ways while building strong foundations for professional success.

Chico State's Concrete Industry Management

program is a nationally recognized, interdisciplinary degree that combines concrete technology with business administration to prepare students for leadership roles in the concrete and construction industries. As one of only five such programs in the United States and the only one on the West Coast, it was developed in close collaboration with over 50 industry partners who contribute funding, equipment, internships, and curriculum input. The program emphasizes hands-on learning through labs, site visits, and internships, and boasts a 100% job placement rate for graduates, with starting salaries averaging around \$80,000.

IMPACT SPOTLIGHT

Fast Pitch New Venture Competition—Bridging Students and Local Entrepreneurs

The Fast Pitch New Venture Competition, hosted annually by the Wells Fargo Center for Small Business & Entrepreneurship at CSUN, exemplifies the center's commitment to experiential learning and regional business collaboration. This event invites student entrepreneurs to pitch their startup ideas to a panel of judges composed of local business leaders, alumni entrepreneurs and faculty experts. The competition is designed to simulate real-world investor presentations and connect students with potential mentors, collaborators and employers.

In one recent competition, a student team developed a mobile app aimed at streamlining appointment scheduling for small service-based businesses. With mentorship from a local tech entrepreneur and feedback from judges representing regional venture firms and small business owners, the team refined its business model and presentation. As a result, it secured a summer internship with a local startup accelerator and received seed funding to continue developing its prototype.

The Wells Fargo Center facilitated this opportunity by:

- **Recruiting regional business leaders to serve as mentors and judges**
- **Providing pitch coaching and business development workshops in advance of the event**
- **Offering follow-up support through faculty mentorship and access to university resources**

This initiative not only helped students gain practical entrepreneurial experience but also strengthened ties between CSUN and the local business ecosystem, reinforcing the center's role as a bridge between academic learning and regional economic development.

Concrete Solutions: A Student-Led Infrastructure Project Supporting Community Resilience in Chico

In 2022, students from Chico State's Concrete Industry Management (CIM) program led the planning and construction of a 13,000-square-foot parking lot for the Chico Islamic Center, a vital community hub that had seen increased demand for services, particularly from Afghan refugees following the U.S. withdrawal from Afghanistan. The center reached out for help to address urgent infrastructure needs. Under the guidance of Assistant Professor Mohammed Albahtiti, CIM students took full responsibility for managing the project, from site planning to execution. The initiative was supported by local industry partners, including:

- **Teichert Materials, which donated all sand and gravel**
- **Basalite, which contributed approximately half a million pavers**
- **Matthews Readymix, which supplied the concrete**

Students acquired real-world experience in project management, logistics and stakeholder communication, while the program reinforced its commitment to community service. The project improved local infrastructure and highlighted the

program's capacity to produce job-ready graduates with technical and leadership skills.

Previous CIM-led projects in the community have included accessible recreation areas in Bidwell Park and concrete improvements at local schools.

PUBLIC POLICY & CRIMINAL JUSTICE



Local governments in California employed a total of 1.72 million workers in 2024. From 2020 to 2024, the industry experienced a robust 11% growth, reflecting a rising demand for skilled professionals in public administration.¹ This trend highlights the critical need for individuals who not only understand the principles and practices of effective governance but are also deeply committed to serving the public good. In times of difficult budget decisions, California relies on its leaders and policymakers, the majority of whom were prepared at the CSU. Complementary to state and local government agencies, California employed nearly 117,000 full-time law enforcement personnel, resulting in one of the larger law enforcement workforces in the country, which is reflective of the state's significant population and complex judicial needs.²

KEY CSU ACTIVITIES

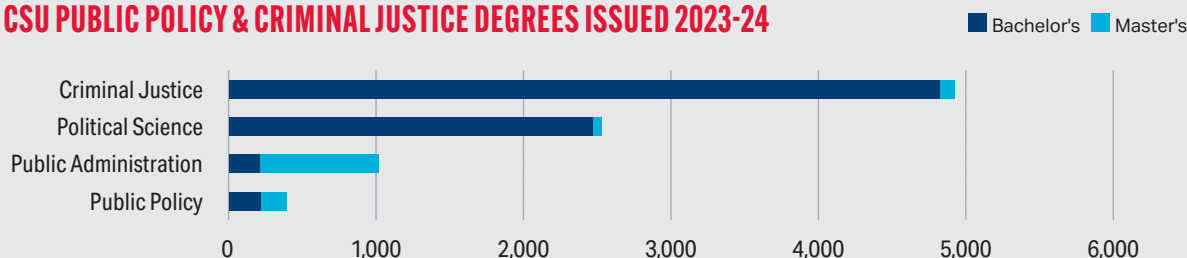
The CSU awarded more than 8,800 bachelor's and master's degrees that support the state's public policy, criminal justice, political science and public administration fields in 2024. These graduates represent roughly half (49%) of the state's total bachelor's graduates and 45% of total statewide graduates in 2024 in these fields.³

¹ Lightcast industry LMI

² <https://www.ppica.org/publication/law-enforcement-staffing-in-california/>

³ ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

CSU PUBLIC POLICY & CRIMINAL JUSTICE DEGREES ISSUED 2023-24



Source: ICF estimate based on data of 2023-24 CSU degrees issued.

Degree Programs:

The CSU system offers undergraduate and graduate degree programs in public policy, political science, public administration and criminal justice. All are designed to prepare students to lead impactful careers in government, nonprofit leadership, law enforcement and policy analysis. The chart above shows the breakdown of the four degree types. Impressively, the CSU conferred 83% of criminal justice baccalaureates in California in 2024.¹

Specialty Programs and Research:

Several CSU campuses have centers and academic divisions that provide students in public policy, public administration and criminal justice with hands-on learning, research opportunities and professional development. They include:

- **At Cal State Fullerton, the Division of Politics, Administration, and Justice** offers undergraduate degrees in Criminal Justice, Political Science, and Public Administration, along with a Master of Public Administration (MPA) with specializations in public policy, finance, and human resources. Housed within the division, the Center for Public Policy serves as a hub for applied research and regional collaboration, connecting students and faculty with real-world policy challenges.
- **At CSUDH, its bachelor's degree program in criminal justice administration with a concentration in homeland security studies** prepares students for careers in law enforcement, corrections and national security. The Dominguez Hills program emphasizes

policy, research and ethics, equipping students with the analytical and leadership skills needed to navigate complex justice systems. Offering clear pathways to graduate study and public service roles, the program serves as a strong foundation for students committed to advancing justice and public safety.

- **Cal State Long Beach's Graduate Center for Public Policy and Administration (GCPPA)** offers a nationally accredited Master of Public Administration (MPA) program that prepares professionals to lead in public and nonprofit sectors. Through its partnership with the College of Professional and Continuing Education (CPaCE), the center provides flexible learning options that include accelerated and fully online formats designed for working adults. See more details about the program in the highlight box on the next page.

IMPACT SPOTLIGHTS

Strategic Location, Real-World Impact: Sacramento State's Public Policy and Administration Program

Sacramento State's Public Policy and Administration (PPA) program stands out for its prime location just minutes from the California state capitol. Each semester, students step into the heart of California's government, interning with the state Legislature, the governor's office and key departments such as finance, health and human services and environmental protection. These experiences offer a front-row seat to the policymaking process and provide valuable

¹ ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

professional exposure. Beyond internships, the program fosters deep collaboration with influential organizations such as the Legislative Analyst's Office and California Forward. Through these partnerships, students engage in real-world policy analysis and reform efforts, applying classroom knowledge to the challenges facing California today. Faculty-led research projects further enrich the learning experience. Working alongside public agencies, students contribute to evidence-based policy development that directly shapes outcomes in communities across the state. Whether analyzing budget impacts or evaluating social programs, students are not just preparing for public service, they're already making a difference.

Sacramento State's PPA program exemplifies how location and mission align to serve both students and the broader public sector.

Bridging Classrooms and Communities: Transformative Partnerships in Criminal Justice Education

San Francisco State's Criminal Justice Studies (CJS) program is deeply engaged in innovative external partnerships that emphasize social justice, community engagement and interdisciplinary collaboration. The CJS department maintains strong ties with local and regional organizations, including public defender and district attorney offices, community-based reentry programs and nonprofits focused on restorative justice, youth advocacy and housing justice. Key partner organizations include the Center for Juvenile and Criminal Justice (CJCJ), the Bay Area JusticeCorps and the San Mateo County Probation Department. These partnerships provide students with experience in real-world criminal justice settings, helping them develop advocacy and policy skills. They also positively impact the community by directly assisting underserved populations. Students intern with organizations that provide legal aid, reentry support, youth mentorship and victim advocacy. These placements expand the capacity of community organizations to serve marginalized populations, including formerly incarcerated individuals, at-risk youth, and survivors of domestic

violence. Furthermore, through partnerships with nonprofits and public agencies, students contribute to policy research, data analysis and community organizing. These alliances are reciprocal. Students gain real-world experience and community partners benefit from mutual learning and capacity building.

Accelerating Public Leadership: CSULB's Online MPA for Change-Makers

The Accelerated Master of Public Administration (MPA) Program offered through Cal State Long Beach in partnership with the College of Professional and Continuing Education (CPaCE) is a fully online, cohort-based graduate program designed for working professionals in the public and nonprofit sectors.

Key Features of the Partnership:

- **Cohort-based model:** Students progress through the program as a learning team, fostering peer support and professional networking.
- **Agency collaboration:** Many students are sponsored or supported by their employers like city governments, county departments, and nonprofit organizations, all of whom benefit from employees gaining advanced skills in leadership, budgeting, and policy analysis.
- **Curriculum relevance:** Courses are designed with input from public sector leaders to ensure alignment with real-world challenges in governance, human resources, and financial management.

Impact:

- Over **1,700 MPA graduates** from CSULB are now serving in **leadership roles across Southern California and beyond.**
- The program strengthens **public sector capacity** by equipping professionals with tools to manage complex policy environments and lead organizational change.

ENGINEERING



California's engineering industry is a global leader. It's large, strategically diversified, innovation-driven and globally influential. Whether in semiconductors, biotech, aerospace or robotics, the state offers unmatched opportunities for engineers. Roughly 132,600 workers are employed in the engineering services sector across California. In 2024, the industry generated \$29 billion in gross state product (GSP), nearly doubling its revenue over the past 10 years.¹ About 30% of the industry was hiring, with nearly 38,800 job openings. To maintain this growth, the industry relies on a robust engineering workforce pipeline.

KEY CSU ACTIVITIES

In 2024, CSU campuses issued just over 8,700 engineering degrees, roughly 7,000 bachelor's and 1,700 master's degrees, preparing students

for careers in fields ranging from aerospace and civil engineering to software and biomedical engineering.² General engineering degrees, the largest field, account for about 32% of all engineering degrees the CSU confers annually.³

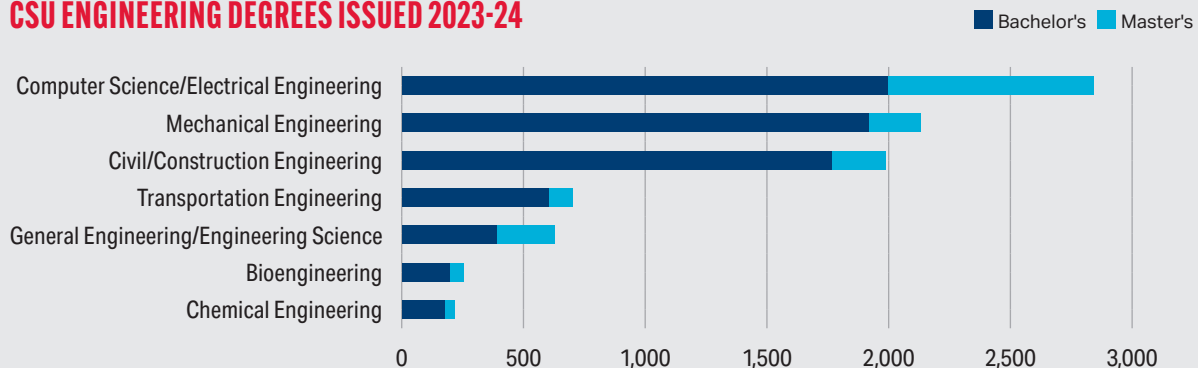
The majority (53%) of all general engineering bachelor's degrees issued in California in 2024 were from a CSU.⁴

Degree Programs:

During the 2023-24 academic year, 41,542 students were enrolled in engineering degree programs across the CSU. Most CSU campuses provide bachelor's and master's degrees in core engineering disciplines, including mechanical engineering, electrical and computer engineering, civil engineering, industrial and systems engineering, biomedical engineering and environmental engineering. Among the system's leading aerospace engineering programs, Cal Poly San Luis Obispo, Cal Poly Pomona and Cal State Long Beach stand out for their excellence and national recognition. According to U.S. News & World Report, Cal Poly San Luis Obispo ranks second in the United States among undergraduate aerospace programs at institutions without doctoral degrees, with Cal Poly Pomona and Cal State Long Beach tied at fourth.

In addition to these foundational programs, several CSUs offer interdisciplinary degrees that reflect emerging industry trends and the system's

CSU ENGINEERING DEGREES ISSUED 2023-24



Source: ICF estimate based on data of 2023-24 CSU degrees issued.

¹ Lightcast industry LMI

² ICF estimated based on Data from CSU Degrees Issued 2023-24

³ ICF estimated based on Data from CSU Degrees Issued 2023-24

⁴ ICF estimated based on Data from CSU Degrees Issued 2023-24. Lightcast 2023 Degree Completions in California

commitment to align its degree programs with the needs of businesses in California. For example, Chico State offers programs in mechatronics engineering and energy systems engineering, while CSUN features manufacturing systems engineering and engineering management. Cal State East Bay also offers a focus in engineering management, equipping students with both technical and leadership skills.

Centers and Institutes:

Engineering colleges throughout the CSU system are driving innovation through hands-on learning, industry collaboration and cutting-edge research. From sustainable energy and aerospace to advanced manufacturing and autonomous systems, campus-based centers equip students with the skills and experience to lead in California's most vital industries.

- **Space Beach at Cal State Long Beach** is an initiative that serves the aerospace and defense industry in Long Beach and Los Angeles County, underscoring the region's importance as the aerospace capital of the world. Current grants totaling \$4 million include research on propellant control, student training on multiphase combustion, development of an experimental platform for multi-agent drones, and a cube-sat launch opportunity. The aerospace industry is the largest employer of College of Engineering graduates with Northrup Grumman, Boeing and Raytheon being the top three employers. The City of Long Beach is home to a robust startup culture with Vast, Relativity Space, Rocket Lab, JetZero and many other innovative companies that rely on a trained engineering workforce.
- **At Cal State Long Beach**, the College of Engineering is a hub of innovation and applied learning. With a strong emphasis on project-based education and industry collaboration, students engage in real-world problem-solving from day one. The college is home to cutting-edge facilities like the Innovation Space and the Advanced Manufacturing Lab (ISPACE), where students design, prototype and test solutions alongside faculty and industry mentors.
- **In the heart of Silicon Valley**, San José State University's Charles W. Davidson College of Engineering is one of the largest and most industry-connected engineering schools in the CSU system. With deep ties to leading tech firms, the college offers students unparalleled access to internships, mentorship and career opportunities. Research centers such as the Aerospace Engineering Research Center and the Cloud Computing Research Lab provide hands-on experience in emerging technologies, positioning students at the forefront of innovation in aerospace, software and systems engineering.
- **Renowned for its "Learn by Doing" philosophy** at Cal Poly San Luis Obispo, the College of Engineering offers students a deeply immersive educational experience. From day one, students participate in lab-based learning and student-led engineering projects that mirror real-world challenges. The college hosts the Center for Sustainability in Engineering, which focuses on environmentally responsible design, and the CubeSat Lab, a nationally recognized program where students build and launch miniature satellites. These experiences prepare graduates to lead in both traditional and emerging engineering fields.
- **At Sacramento State**, its College of Engineering and Computer Science offers robust programs in civil, electrical and mechanical engineering, supported by a strong foundation in applied research. The college is home to the California Smart Grid Center, a leader in advancing sustainable energy systems and grid modernization. Through this center, students engage in cutting-edge research on renewable energy, energy storage and smart infrastructure, equipping them with the skills to address California's environmental and technological challenges.

IMPACT SPOTLIGHTS

Heavy Civil Construction

Cal State Long Beach partners with the Beavers Charitable Trust to produce innovation and training in heavy civil construction. Heavy civil refers to infrastructure projects, including those supported by federal and state legislation. The Joint Training and Certification Project (JTCP), jointly administered with San José State and initiated by CA SB-1 in 2017, has certified over 6,000 technicians for CalTrans on the latest developments in asphalt testing. Internship and job placement rates of the construction management graduates surpass 90%. Other CSU campuses that are supported by the Beavers include Chico State, Cal Poly Pomona, Cal Poly San Luis Obispo, Fresno State, and Sacramento State.

CubeSat/PolySat Laboratory

Founded in 1999, Cal Poly San Luis Obispo's student-run PolySat lab helped write the original CubeSat standard and built the Poly Picosatellite Orbital Deployer (P-POD), a structure that serves as the interface between the CubeSats and LV, that other universities and companies still rely on today.¹ The lab has guided more than 500 satellites

to orbit and launched 12 of its own missions in 25 years, partnering with NASA Goddard, JPL and private firms. The program immerses hundreds of aerospace, computer and electrical engineering students each year in the full design-build-launch cycle, producing graduates who move straight into the commercial space sector and national labs.²

"Charging Eagles" Battery Workforce Challenge Team

Cal State LA's College of Engineering, Computer Science, and Technology leads one of only 12 North American teams in the U.S. Department of Energy/Stellantis Battery Workforce Challenge (2023-26). Sixty-six undergraduate and graduate "Charging Eagles" are designing, building and testing a 62-kilowatt-hour battery pack that will be integrated into a Ram ProMaster EV. A recent \$150,000 South Coast AQMD grant adds to more than \$500,000 in sponsor support, funding hardware, simulation tools and student travel to national competitions. Beyond the prototype, the project is creating a pipeline of EV-battery engineers for Southern California, with hands-on training in cell selection, thermal management coding for battery management systems and safety certification.³

HARNESSING CSU RESEARCH FOR SOCIETAL IMPACT

The CSU's extensive research activities are woven into virtually every aspect of the state's well-being, driving economic growth, supplying talent, powering innovation, and directly serving its communities. The scale and profile of these activities are growing rapidly, and the CSU is systematically marshalling its vast capabilities to focus on some of the most urgent issues facing California and the world.

**\$981
MILLION**
CSU Research
Expenditures



¹ https://s3vi.ndc.nasa.gov/ssri-kb/static/resources/cds_rev13_final2.pdf

² [Polysat.org](https://polysat.org)

³ <https://www.calstatela.edu/ecst/chargingeagles>

CSU RESEARCH ASSETS, ACTIVITIES AND OUTPUTS

CSU Research Activities Are Significant and Growing

The CSU's campuses, 10 multicampus research consortia, and 300-plus research centers and institutes are a massive engine for innovation in the state. CSU research expenditures for the year ending June 30, 2024, reached \$981 million, an increase of over 49% since 2019.

CSU Research Output Is Burgeoning

Between 2019 and 2023, CSU researchers generated well over 43,000 peer-reviewed articles, book chapters, creative works and conference papers. And the impact of this knowledge generation reaches far beyond academic journals: roughly one in three pieces lists an undergraduate or graduate student as a co-author, underscoring the CSU's "learning-by-doing" model; and thousands of items are deposited in the open-access ScholarWorks, a shared institutional repository which has logged 2.9 million global downloads and views to date. These papers tackle issues from wildfire resilience and clean-energy storage to AI-enabled health care and semiconductor reliability, demonstrating how the CSU's research system is purpose-built to address California's toughest challenges while delivering globally cited science.

CSU's Research Profile Is Rising Systemwide

Twenty-one of the CSU's 22¹ campuses are now recognized by the Carnegie Classification of Institutions of Higher Education for their significant research activities, a sweeping recognition of the system's growing scholarly profile.

SDSU achieved Carnegie's prestigious R1 designation (roughly top 5% of U.S. universities by research dollars and doctorates awarded), becoming the first CSU to attain this status.

Eight CSUs have earned Carnegie's R2 classification, indicating substantial research activity and doctorate production. And in 2025, 12 other CSUs were classified in Carnegie's new "Research Colleges & Universities (RCU)" category, signifying over \$2.5 million per year in research but few doctorate degrees granted.²

Multicampus Research Collaboratives Amplify CSU Impact

The CSU's 10 multicampus research collaboratives, also known as affinity groups, help turn its geographically dispersed universities into one statewide innovation engine. By knitting together faculty, facilities and students around high-priority challenges such as sustainable agriculture, biotechnology, wildfire resilience, and desert and coastal ecosystems, these consortia do what any single campus cannot. They pool complementary expertise, share specialized instrumentation and speak to funding agencies and policymakers with a unified voice. The result is bigger, more competitive grant proposals; faster translation of discoveries into field demonstrations, patents and startups; and curricula that embed students in cross-campus interdisciplinary teams tackling real California problems.

¹ Transition to 22 universities in progress (Cal Poly San Luis Obispo and Cal Maritime integrating)—official fall 2026.

² ACE Research Activity Designations Fact Sheet: <https://carnegieclassifications.acenet.edu/wp-content/uploads/2025/02/RAD-fact-sheet.pdf>

CSU's Multi-Campus Research Collaboratives

Agricultural Research Institute (ARI) works with the colleges of agriculture on four CSU campuses and allied disciplines across the CSU. ARI conducts applied research through university-industry partnerships.

CSU Climate Adaptation Consortium (CSU ADAPT) addresses the challenges of climate change by enhancing development and application of transdisciplinary climate adaptation solutions and climate action research.

California Desert Studies Consortium (CDSC) is a collaboration of seven CSU campuses that promotes research and education in the geologically, biologically and culturally diverse California desert regions.

Council on Ocean Affairs, Science & Technology (COAST) promotes research and education that advance the knowledge of marine and coastal resources and the processes that affect them.

CSU Biotechnology (CSUBIOTECH) makes grants to seed biotech research projects, curriculum redesign efforts, entrepreneurship and partnerships with the life science industry.

CSU Shiley Haynes Institute for Palliative Care increases access to and awareness of palliative care by educating health care professionals and communities about the value and practice of palliative care.

CSU-WATER is a systemwide resource changing the way California manages water—through research, partnerships, education and training.

Ocean Studies Institute (OSI) is a consortia of nine CSU campuses in partnership with the Southern California Marine Institute. It is based out of Los Angeles Harbor and focuses on urban ocean and coastal sciences.

Social Science Research & Instructional Center (SSRIC) supports faculty and student research through shared access to databases, training and research opportunities, and events.

STEM-NET is designed to support California's increasing need for STEM talent by supporting CSU research through faculty and student seed grants and disseminating best practices on STEM research and education.

These consortia align the CSU's vast research capacity with the state's most urgent needs while amplifying impact and ensuring that breakthroughs made in Humboldt's redwood forests can inform practices in Imperial Valley fields, or that a Fresno-led advance in drought-tolerant crops benefits growers from Chico to San Diego. By bridging campuses and regions, these collaboratives multiply the system's collective reach and create an integrated pipeline of talent and solutions for California's communities and industries.

Leveraging AI to Magnify Research Impacts

Artificial Intelligence is no longer a niche technology; it is a new operating layer of the global economy, accelerating drug discovery, optimizing power grids, predicting natural disasters and even coauthoring works of art. In classrooms and laboratories, AI is altering how we teach, learn, invent and govern, making digital fluency nearly as fundamental as literacy itself. CSU investigators across all campuses and a diverse range of disciplines are leveraging new technologies such as advanced machine learning, computer vision and natural language models to speed discoveries and confront critical problems facing California and the world.

Health & Biomedical Engineering

- **Precision Health at Cal State Long Beach:** Dr. Shadnaz Asgari's Biomedical Signal Processing Lab uses deep-learning algorithms to detect early signs of traumatic brain injury and epilepsy from high-density EEG streams, paving the way for faster, more accurate diagnoses in neurocritical care settings.
- **Neural Biomarker Discovery at Cal State Long Beach:** Biomedical engineer Dr. Derek Hu trains deep-learning networks on high-density EEG time-series from patients with hard-to-diagnose epilepsies. The lab is developing new biomarkers that promise to shorten diagnostic delays, steer patients toward precision therapies and open a path to real-time seizure forecasting in neurocritical care settings.

Energy & Environment

- **AI-Guided Wind Farm Reliability:** An interdisciplinary team spanning several CSU campuses is training neural networks on SCADA and vibration data to predict turbine faults days in advance, boosting renewable-energy uptime and lowering maintenance costs.
- **AI-Powered CT Scan Microscopy of Coast Redwoods at Cal Poly Humboldt:** Leveraging AI, Dr. Alana Chin's team was able to make a rare discovery about redwood trees. Running Fully Convolutional Networks to study some of the highest resolution CT scans ever made on redwood cores, the team was able to make unprecedented 3D anatomical measurements and verify the existence of a previously unrecognized tissue sub-class in wood. This important finding will inform California's understanding of tree survival, forest management practices and strategies for optimizing natural carbon storage.

Education & Social Services

- **Student Success "Early Warning" at Cal State Fullerton:** The LUMINATE project applies ensemble models to learning management system, financial aid and advising data, flagging students at risk of dropping out so that they can receive support before a crisis derails their studies.
- **AI for Social Good (AI4SG) Chatbots across CSU:** An AI4SG program funded by the National Science Foundation has trained more than 1,000 CSU students to build multilingual conversational agents that tackle local challenges. Projects range from San José State's community well-being bot, which guides low-income residents to food banks, rental assistance and mental health resources, to Cal Poly Pomona's "MMEE: Zero Hunger" assistant helping Riverside County families locate food support. The result is a student-driven AI toolkit that turns classroom learning into a real-world social-service infrastructure.

Together these diverse projects illustrate how the CSU is wielding AI not just to push the frontiers of knowledge but to deliver tangible solutions for health, sustainability, equity and economic resilience across California.

THE VALUE OF CSU RESEARCH: THREE DIMENSIONS OF IMPACT

CSU research is not an isolated academic pursuit; it is a high-value engine that advances student success, sparks innovation and resolves the state's toughest challenges. The value of CSU's research activities can be better understood by examining their impacts in three areas: student impacts, industry impacts and societal impacts.



Student Impacts: Career Readiness and Success

Research is part of the undergraduate experience. Thousands of students join faculty-mentored projects every year, learning to frame questions, analyze data and communicate results. Such skills translate into higher graduation rates, stronger graduate-school placement and faster career advancement. By integrating research into coursework and service learning, the CSU ensures that participation is not a privilege for the few but a pathway for the many.

Industry Impacts: Innovation and Collaboration

Active research programs attract and retain top-tier faculty whose discoveries invigorate classroom teaching, elevate academic reputation and generate discoveries. The results are tangible. Since 2020, CSU campuses have filed more than 400 patent applications and secured 140 issued patents. Meanwhile, faculty and student scholars have produced over 43,000 publications. Each breakthrough—whether a new composite for aerospace, an AI-driven health diagnostic or an energy-storage advance—adds to the global sea of knowledge and seeds future industries. Equally important, CSU researchers work shoulder-to-shoulder with hundreds of California companies through joint labs, licensing agreements and startup incubators. The efforts translate campus discoveries into market-ready products, strengthen supply chains and provide employers with a reliable source of innovation-savvy graduates.

Societal Impacts: Solutions to Critical Issues

CSU research is intentionally oriented toward California's pressing needs. Multidisciplinary teams develop pragmatic solutions for water scarcity, wildfire resilience, clean energy deployment, coastal restoration and the evolving demands of agriculture, biotechnology and technology sectors. This applied focus converts scientific insight into policies, tools and projects that safeguard communities and strengthen the state's economy.

The pages that follow highlight how CSU research is affecting six key industries or issues critical to California's future: the tech sector, biotechnology, agriculture, water, and marine resources. Each section describes the importance of the topic, summarizes relevant CSU activities and includes Impact Spotlight profiles that illustrate how CSU research delivers value to students, industry and society.

TECH, CYBERSECURITY AND ARTIFICIAL INTELLIGENCE



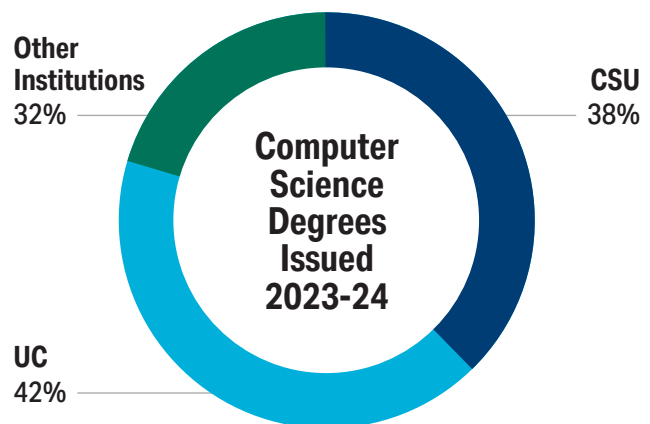
California's technology industry is the state's single most powerful economic engine, generating an estimated \$520 billion in gross state product, roughly one-sixth of California's \$3.7 trillion economy. It delivered more than \$55 billion in state tax revenue in fiscal year 2022-23 (about 30% of the total).¹ Fueled by deep talent pools, dense supplier networks and a world-leading venture-capital market that funneled \$43 billion into California companies in 2024,² the sector anchors global innovation clusters from Silicon Valley and the San Francisco Bay Area to Los Angeles, San Diego and a growing constellation of inland tech corridors.

Home to industry leading firms such as Apple, Alphabet, Meta, NVIDIA, Salesforce and Adobe, as well as more than 50,000 startups, California's tech ecosystem has long been at the center of global advances in semiconductors and hardware, clean energy solutions, life science informatics, and digital media. Today it is the epicenter of next-generation technologies such as cybersecurity and artificial intelligence, forging the tools, talent and ethical frameworks that will secure and power the systems of tomorrow.

The CSU is pivotal to the growth of California's tech sector, graduating tens of thousands of computer scientists, engineers and IT specialists every year, forging strategic partnerships with local tech companies for apprenticeship pathways and

research collaborations and driving advancements in emerging fields. In 2024, CSU campuses awarded 38% of the computer science degrees earned in California.³ Through its scale, diversity and deep industry integration, the CSU doesn't just supply talent; it continuously injects fresh ideas, cutting-edge skills and inclusive perspectives that make California the vanguard of global technological innovation.

When new technologies such as AI and advanced computing are rapidly transforming industries and challenging traditional approaches to technology education, the CSU has met these challenges with unprecedented innovation and scale, ensuring that California's workforce remains at the global forefront of the digital transformation.



Source: ICF estimate based on 2023-24 CSU degrees issued data

KEY CSU ACTIVITIES

Fueling California's Tech Workforce:

California's tech prowess rests on a continuous influx of skilled graduates, and no single institution supplies more of that talent than the CSU. Each year the CSU confers nearly 27,000 STEM bachelor's and master's degrees, which is one in five of all tech-relevant degrees awarded in the state.⁴ Historic workforce studies show that the CSU provides about half of California's new engineers and nearly 40% of computing graduates, making

¹ [linkedin.com/advo/cachamber.com](https://www.linkedin.com/advo/cachamber.com)

² [nvca.org](https://www.nvca.org)

³ ICF estimate based on data of 2023-24 CSU degrees issued. Lightcast 2023 Degree Completions in California

⁴ CSU. 2024. State Performance Measures for 2023-24 Academic Year Memorandum. <https://www.calstate.edu/impact-of-the-csu/government/Advocacy-and-State-Relations/legislative-reports/1/State-Performance-Measures-2024.pdf>

it the indispensable talent pipeline for companies large and small.¹ In 2024, the CSU awarded more than 5,500 undergraduate and 2,200 postgraduate degrees in computer science, data science and information technology. With strong industry partnerships and hands-on learning programs, the CSU equips students with practical skills aligned to current tech trends and needs.

Top Ranked Computer Engineering Programs:

Multiple CSU campuses are nationally recognized for their excellence in computer engineering, particularly among institutions that do not offer doctoral degrees. According to the 2025 U.S. News & World Report rankings:

- Cal Poly San Luis Obispo's computer engineering program is ranked No. 1 nationally among undergraduate programs at schools where the highest degree is at least a bachelor's or master's.
- Cal Poly Pomona was ranked No. 3, Cal State Fullerton was tied for No. 8, CSUN (Northridge) was ranked No. 9, and Cal State LA was ranked No. 11, among such institutions.²

Multidisciplinary Tech Education and Research:

Several CSU campuses have established specialized, multidisciplinary centers that integrate diverse fields of study related to tech to better prepare graduates. Examples include:

- San José State University recently launched the College of Information, Data and Society (bringing together the School of Information and the Department of Applied Data Science) to expand access to degrees that cross-cut these two areas. These integrated academic pathways will prepare graduates for work in artificial intelligence, big data analytics and cybersecurity, among others.
- Cal State San Bernardino recently created its School of Cyber and Decision Sciences, which blends the disciplines of cybersecurity, business and data analytics, supply chain

management and applied AI. The school offers four undergraduate and master's degree programs focused on cybersecurity, business analytics and intelligence, and interdisciplinary studies in business criminal justice and national security.

- San Diego State's Cybersecurity Center for Research and Education serves as the university-wide hub linking computer science, electrical and computer engineering, management information systems, homeland security and the IT division. CCRE's research portfolio spans blockchain integrity and ransomware forensics, BGP/Internet-routing hardening, AI robustness/trustworthiness, and cyber-physical system security for power and water plants.
- SDSU has also launched the Dynamic Systems & Intelligent Machines Lab, which is building AI-guided search-and-rescue robots that use rotating microphone arrays to locate sound sources in cluttered disaster zones. A \$990,000 U.S. Army Research Office Early Career Award is accelerating this work, positioning SDSU at the cutting edge of robotics for emergency response and industrial monitoring.

Industry Partnerships:

The CSU maintains more than 4,000 active industry partnerships across the tech sector to enhance education, research and workforce development. These collaborations connect CSU campuses with leading technology companies such as Apple, Google, OpenAI, Microsoft, Amazon Web Services (AWS), NVIDIA, Adobe, Intel, IBM, and LinkedIn. Many of these companies offer CSU students hands-on experience through internships and apprenticeships, bridging classroom learning with real-world applications. Partner firms also contribute to designing microcredential programs in areas such as AI, cybersecurity and data science, ensuring that CSU graduates are career-ready and can help meet critical industry needs.

¹ <https://www.calstate.edu/csu-system/board-of-trustees/past-meetings/2019/Documents/mar-18-20-ed-pol.pdf>

² https://www.usnews.com/best-colleges/rankings/engineering-doctorate-computer?_sort=rank&_sortDirection=asc

IMPACT SPOTLIGHT: CSU LEADERSHIP IN CYBERSECURITY

California's cybersecurity industry is critical to protecting the digital infrastructure that underpins modern society, from government systems and financial networks to health care, energy and personal data. As cyber threats grow in scale and sophistication, strong cybersecurity is essential for national security, economic stability and public trust. The CSU plays a pivotal role in advancing cybersecurity education, workforce development and research across California and the nation.

- **Degree Programs:** Multiple CSU campuses offer specialized degrees in cybersecurity. For instance, San Diego State offers a Master of Science in Cybersecurity Management, training business professionals in developing organizational cybersecurity plans and risk management strategies. The CSU enrolls over 1,000 students each year in cyber-related programs.
- **National Centers of Academic Excellence:** Four CSU campuses have been designated as National Centers of Academic Excellence (CAE) in Cyber Defense Education: Cal State San Bernardino, Cal Poly Pomona, Sacramento State, and Cal State San Marcos. This designation certifies that these school's cyber-defense programs meet and commit to continually meeting the rigorous national standards for curriculum, faculty expertise, student outcomes and community engagement.
- **Cybersecurity Leadership at CSUSB:** CSUSB has emerged as a national leader in cybersecurity education and workforce development. Its comprehensive academic programs, strategic partnerships and community engagement have positioned it at the forefront of preparing students for careers in cybersecurity. In 2020, CSUSB was appointed as the CAE National Center in Cybersecurity, supporting over 400 CAE institutions across the country.
- **Local Security Operations Centers & Cyber Fusion Center:** The CSU is actively enhancing cybersecurity in California through the establishment of local Security Operations Centers (SOCs) across its campuses. These SOC initiatives equip students with essential cybersecurity skills and contribute to safeguarding digital assets at local and state levels. The CSU system is also implementing a centralized Cyber Fusion Center to enhance cybersecurity across its campuses. This initiative aims to provide 24/7 monitoring, real-time threat intelligence sharing, incident response support and compliance assistance, thereby strengthening the CSU's cybersecurity posture.
- **Workforce Innovation Technology Hubs (WITH)-Cyber:** Led by CSUSB's Center for Cyber and AI, formerly known as the Cybersecurity Center, and co-hosted by San José State and Fresno State, the \$4 million, state-funded WITH-Cyber program creates a cradle-to-career cybersecurity pipeline by pairing K-12 cyber camps and teacher workshops with aligned community-college certificates, university coursework and paid SOC internships. The three hubs share resources and curricula, mentor thousands of learners each year and place students in industry-sponsored apprenticeships that are expanding California's cyber-defense workforce while strengthening regional security ecosystems.

The CSU—with its four National Security Agency-designated Centers of Academic Excellence, thousands of students enrolled in cyber-focused degrees, and a statewide network of security operations centers and K-12 talent pipelines—has become a cornerstone of California's cyber-defense workforce.



Cybersecurity Lab – Cal State San Bernardino

IMPACT SPOTLIGHT: THE CSU'S SYSTEMWIDE ARTIFICIAL INTELLIGENCE INITIATIVE

In 2025, the CSU embarked on a pioneering artificial intelligence (AI) initiative, positioning itself as the first and largest AI-empowered public university system in the United States. This comprehensive strategy aims to integrate AI tools and training across all campuses, boosting education, research and workforce readiness for over 460,000 students and 63,000 faculty and staff. Key components of the initiative include:

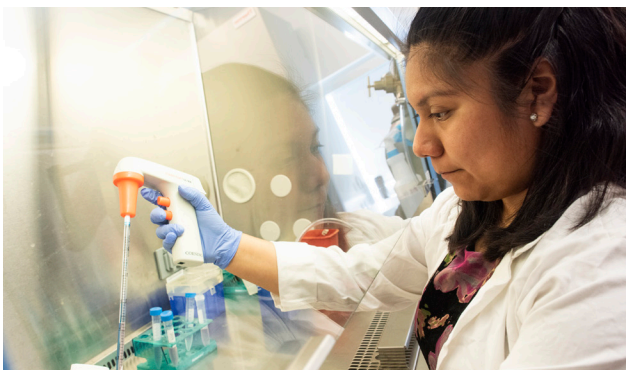
- **Systemwide Access to AI Tools:** In partnership with OpenAI, the CSU has provided access to ChatGPT Edu, a version of ChatGPT designed for educational institutions. The largest deployment of ChatGPT in the world by any single organization enables CSU students and faculty to use AI for personalized tutoring, research assistance and administrative tasks.
- **Democratizing AI Access and Literacy:** The CSU has established the [AI Commons Hub](#), a centralized platform which curates AI tools, datasets, tutorials and CSU-built apps so that students from Fresno State to Cal Poly Humboldt can use the same advanced tools at zero cost, closing geographic and financial gaps that often separate well-resourced campuses from smaller ones
- **Transforming Teaching and Learning:** CSU faculty have already submitted more than 400 proposals in the first AI Faculty Challenge, piloting uses that range from automated lab-report feedback to bilingual writing coaches. Early classroom studies show double-digit gains in assignment-completion rates when ChatGPT Edu is used as an on-demand tutor.
- **Building an AI-Ready Workforce:** Through the [AI Workforce Acceleration Board](#) whose members include Adobe, Alphabet, AWS, IBM, Intel, LinkedIn, Microsoft, NVIDIA, OpenAI and the Office of Governor Gavin Newsom,

industry partners map critical skills, co-design micro-credentials and fund paid internships. The goal is to certify 50,000 students in AI fundamentals by 2026, creating the diverse talent pool that California's economy will need.

- **Academic Applications of AI:** The CSU is rolling out dozens of discipline-specific badges (e.g., AI for Nursing Diagnostics, Prompt Engineering for Journalism), targeting microcredentialing of 50,000 learners by 2026. Embedding ethical, hands-on AI literacy inside general education and major requirements will give future employers verifiable evidence of cutting-edge skills.
- **Leveraging AI for Research:** As discussed earlier in this report, CSU researchers are deploying advanced machine learning, computer vision, and natural language models to accelerate their research and discoveries across a range of problems of critical importance to California and the world.
- **Guardrails and Ethics:** A cross-campus [Generative AI Advisory Committee](#) has released the ETHICAL Principles Framework, detailing seven pillars from equity to accountability to guide policy development, course design and procurement. Annual reviews will keep this framework aligned with rapid advances in AI capabilities and regulation.

By uniting universal tool access, industry-aligned credentials, robust ethical governance and mission-driven research funding, the CSU's AI Initiative is turning the nation's largest four-year university system into a living laboratory for responsible, inclusive AI use. It's a system that not only upgrades teaching and discovery today but also supplies the talent and frameworks that will shape California's digital future.

BIOTECH



California's biotechnology and broader life-science industry is an economic and innovation engine: it sustains about 1.24 million jobs, generates \$128.6 billion in annual labor income and produces more than \$414 billion in statewide economic output. In 2024 alone, venture capitalists poured roughly \$26 billion into California-based biopharma startups, keeping the state at the forefront of cutting-edge fields such as gene editing and AI-powered drug discovery;¹ and the state's universities together secured over \$1 billion in National Institutes of Health grants, feeding breakthrough science into hundreds of companies clustered in the Bay Area, San Diego and Los Angeles.² These intertwined flows of talent, capital and federally funded research power therapies that redefine medicine, ag-biotech innovations that bolster food security, and climate-focused bio-manufacturing, making California a global hub whose discoveries ripple far beyond the state's borders.

KEY CSU ACTIVITIES

The CSU helps power the state's global biotech leadership by providing a critical talent pipeline for the state's industry and by conducting critical translational research.

Undergraduate Talent Pipelines

- **Cal State San Marcos** offers a stand-alone baccalaureate in biotechnology that combines upper-division lab rotations with a required industry internship.
- **CSUN** and **CSU Bakersfield** embed full biotech course blocks within their undergraduate biology degree programs. This provides molecular-technique depth yet preserves broad biological training.
- **Cal State Fullerton** lets students specialize early through the molecular biology & biotechnology concentration in its undergraduate biological science program.

CSU Graduate Training

- **CSU Channel Islands** pioneered an applied master's in biotechnology & bioinformatics (with an optional dual M.S./MBA) that mixes regulatory affairs, project management and wet-lab courses.
- **Sacramento State** layers a stem-cell practicum onto its master's degree program in biotechnology, preparing graduates for GMP cell therapy facilities.
- **Fresno State** and **San José State** both run biotechnology master's programs similar to a Professional Science Master's one that pair advanced molecular coursework with business or engineering electives.
- **San Francisco State** awards a master's in biomedical science: Biotechnology, leveraging partnerships with Bay-Area startups for thesis projects in gene-editing, biosensors and biomanufacturing.

¹ https://www.biocom.org/news/eir/?utm_source=chatgpt.com

² <https://www.avisonyoung.us/documents/d/san-francisco/avison-young-bay-area-life-science-report-q1-2024>

Workforce Talent Pipeline:

The CSU is one of the state's largest biotech talent pipelines, conferring over 27,000 degrees in 2023-24 in STEM fields that feed biopharma, ag-tech, and biomanufacturing labs.¹ Nine CSU campuses offer degrees focused on biotech and graduates several hundred B.S. and M.S. biotechnologists each year to fill laboratory, quality-control and regulatory roles across California. This combination of breadth and depth makes the CSU a cornerstone of the state's biotechnology talent and innovation pipeline.

Translational Research at CSU Research Centers:

The CSU hosts a number of research hubs that drive discovery, entrepreneurship and industry collaboration in biotech. These hubs provide CSU students access to industry-grade instruments, seed-fund high-risk ideas that later win NIH/NSF awards, and offer low-cost lab space to startups. By scattering specialized biotech facilities up and down the state—immunology in San Diego, ag-biotech in Fresno, entrepreneurship in L.A., protein analytics in Fullerton and integrated omics on the Central Coast—the CSU ensures that California's life-science sector has a local innovation anchor in every major region.

CSU Centers	Core Focus & Facilities	Impact Highlights
Center for Applied Biotechnology Studies (CABS) Cal State Fullerton	Houses multiple wet-lab cores and a professional-grade GMP suite; runs the annual CABSCON conference that pairs student posters with biotech company keynotes.	Provides contract research and development for Orange County firms and embeds undergrads in applied projects, keeping the region's device/diagnostics companies stocked with entry-level scientists.
Center for Applications in Biotechnology (CAB) Cal Poly San Luis Obispo	Anchored in the 102,000-square-foot Frost Center, including approximately 30,000 square feet of shared research space plus a bioinformatics & applied data science Core.	Allows sophomores to jump straight into independent cloning, bioreactor and omics projects; also offers fee-for-service testing to Central Coast ag-biotech startups.
LA BioSpace Cal State LA	A 20-bench life science incubator opened in 2021, five miles from downtown Los Angeles, with coworking offices, shared equipment and a hands-on "Incubator Academy."	Targets inclusive entrepreneurship: first-gen students and local founders get access to wet labs, coaching to get Small Business Innovation Research (SBIR) grants, and direct links to the East Los Angeles biomanufacturing corridor.
Donald P. Shiley BioScience Center San Diego State	The only U.S. academic center devoted to the intersection of infection, inflammation and cardiovascular disease; it integrates immunology, microbiology and cardiac physiology labs.	Discoveries such as immune-activating peptide EP67 have spun out into antiviral IP and student-authored papers, feeding San Diego's therapeutics pipeline.
Jordan Agricultural Research Center (JARC) Fresno State	A 30,000 square-foot interdisciplinary facility connecting agriculture, engineering and life science faculty; includes plant-pathology suites and pilot-scale food-processing bays.	Serves the San Joaquin Valley ag-tech cluster with research on drought-tolerant crops, soil microbiomes and sustainable food processing, while giving Valley students paid research roles close to home.

¹ ICF estimated based on Data from CSU Degrees Issued 2023-24

MULTICAMPUS COLLABORATION: CSUBIOTECH

Since its launch in 1987, California State University Biotechnology (CSUBIOTECH, formerly CSUPERB) has become the connective tissue for biotechnology across all CSU campuses: awarding research funding, hosting an annual industry symposium and strengthening campus-based biotech activities.

- **Research Funding:** CSUBIOTECH has strategically invested \$18 million in competitive seed, curriculum, and student-support grants, helping the CSU to attract significant additional outside funding.¹ Over the last 25 years, CSUBIOTECH has supported nearly 2,500 faculty and students with research and education grants, leading to over 360 peer-reviewed publications and more than 1,000 presentations. In 2023-24 alone, CSUBIOTECH turned a \$150,000 outlay on 10 research projects into nearly \$5.8 million in external NIH/NSF awards—a 39-to-1 return on investment—and accelerating research programs from cancer-protein analytics to next-gen heart-assist devices.²
- **Annual Symposium & New Regional Hubs:** The annual CSU Biotechnology Symposium—now in its 37th year—brought 506 attendees, 242 research posters and 45 external partners to Santa Clara in January 2024 under the theme AI & Big Data in Biotech. Complementing the systemwide meeting, five regional hubs (Bay Area, LA, South, Central, North) now stage monthly career network webinars and in-person networking events, lowering travel barriers for students.³
- **Industry Collaboration:** Formal MOUs signed by CSUBIOTECH give CSU investigators free access to the DOE Joint Genome Institute's sequencing and synthesis platforms, while partnerships with Biocom California and California Life Sciences place industry scientists

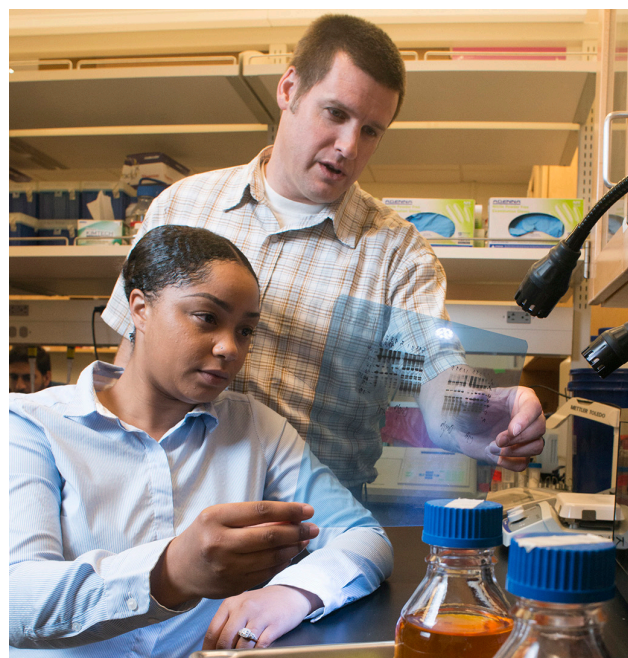
on CSUBIOTECH's Strategic Planning Council and funnel internship and job postings directly to CSU students.⁴

By converting small seed grants into multimillion-dollar awards, convening a 500-person-strong annual symposium, and embedding students in paid, industry-aligned research, CSUBIOTECH multiplies the impact of every state dollar and cements the CSU's role as a decentralized but unified powerhouse feeding California's \$400 billion biotech economy.

IMPACT SPOTLIGHTS

Notable CSU Biotech Startups

CSU research, talent, and incubation resources have helped spawn dozens of biotech companies. The table on the facing page provides a sampler (not an exhaustive census) of biotechnology startups and spinouts whose first intellectual property, founders or incubation space trace directly to a CSU campus. They are grouped in the table by the CSU site where they took root and a brief snapshot of what each company does today is included.



¹ <https://www.calstate.edu/impact-of-the-csu/research/csubiotech/news-announcements/Documents/ay-2023-24-csuperb-annual-report.pdf>

² <https://www.calstate.edu/impact-of-the-csu/research/csubiotech/news-announcements/Documents/ay-2023-24-csuperb-annual-report.pdf>

³ <https://www.calstate.edu/impact-of-the-csu/research/csubiotech/news-announcements/Documents/ay-2023-24-csuperb-annual-report.pdf>

⁴ <https://www.calstate.edu/impact-of-the-csu/research/csubiotech/news-announcements/Documents/ay-2023-24-csuperb-annual-report.pdf>

CSU Biotech Startups

Campus of Origin	Company/ Launch Year	What They Do Now	Milestones & Current Status
Cal Poly San Luis Obispo	Alydia Health (2011, as InPress Technologies)	FDA-cleared “Jada System” that stops postpartum hemorrhage by applying controlled vacuum in the uterus	Won Cal Poly’s Innovation Quest, incubated in the on-campus HotHouse, and was acquired by Organon for \$240 million in 2021 (cie.calpoly.edu , calpoly.edu)
San Diego State	Promune Inc. (2002)	EP67-based immuno-activators and peptide vaccines for human and veterinary use	SDSU’s Donald P. Shiley BioScience Center discovered EP67; SDSU Research Foundation is co-assignee on the core patent that Promune licenses (sci.sdsu.edu , patents.google.com)
Cal State LA	Branchpoint Biosciences (2023)	qPCR/qMA™ kits and services for rapid, quantitative microbiome profiling	Launched in the LA BioSpace incubator; secured NIH SBIR Phase I funding and sells off-the-shelf gut and skin microbiome panels (calstatela.edu , branchpointbiosciences.com)
Cal State LA	Synova Life Sciences (2017)	“WAVE” device that isolates high-viability adipose-derived regenerative cells in 3 minutes for orthobiologic and cosmetic uses	Resident in LA BioSpace; scaling clinical evaluations of the WAVE system in U.S. outpatient surgery centers (calstatela.edu , synovalife.com)
Cal State LA	Kelp Ark (2024)	Modular offshore kelp-cultivation platforms aimed at carbon-removal and bioplastics feedstock	Spun out of Cal State LA ocean-engineering research; prototyping pilot rafts in Santa Monica Bay (calstatela.edu)
CSU Channel Islands	Leap Pharma (2025)	Compounded and novel pet-nutrition pharmaceuticals for hard-to-treat conditions	Started by CSUCI M.S. Biotech alumna; won regional New Venture Fair and now housed in the campus Entrepreneurship & Small Business Institute (ESBI) (csuci.edu)

Dozens more CSU-born biotech enterprises exist—especially among the resident companies currently housed at Cal State LA’s [LA BioSpace](#) and the ag-tech startups coming out of Fresno State’s Jordan Agricultural Research Center—but this sample illustrates how the CSU consistently converts campus science into venture-backed companies.

EP67—turning an SDSU lab discovery into a next-generation immuno-therapeutic

At the [Donald P. Shiley BioScience Center](#) on the San Diego State campus, a small CSU faculty—

student team set out to tame the powerful complement protein C5a. Their solution was EP67, a 10-amino-acid “response-selective” agonist that flips on the innate-immune alarm without the dangerous inflammatory surge C5a normally triggers. In 2012 the group published a landmark PLOS ONE study showing that a single dose of EP67 given to mice within 24 hours of exposure to lethal influenza A prevented 100% mortality and cut weight-loss six-fold, proving the concept of a broad-spectrum, strain-agnostic antiviral built from the body’s own chemistry.¹

¹ Innate Immune Induction and Influenza Protection Elicited by a Response-Selective Agonist of Human C5a | PLOS One

Because the project ran inside a CSU campus center that is explicitly wired for commercialization, SDSU's tech-transfer office quickly patented the peptide and granted an exclusive license to Prommune Inc., a start-up co-founded by the academic inventors. The company has since planned to turn EP67 into a toxoplasmosis vaccine and, in parallel, reported successful swine-influenza trials showing significant reductions in lung lesions and viral load, which is a critical milestone toward FDA licensure of the first self-adjuvanting peptide vaccine for livestock.¹

Along the way, more than a dozen SDSU undergraduates and master's students earned co-author credit or paid lab positions, and Shiley Center leaders estimate that every federal grant dollar on EP67 has already attracted roughly three dollars in private follow-on capital. The center's built-in incubator model ensures discoveries like EP67 move rapidly from bench to biotech pipeline while giving CSU students résumé-ready experience on regulated projects.²

CSU Research on Beetle Protein Changes How Ice Cream Is Made

In the mid-1990s, a small structural-biology group in Cal State Los Angeles' Department of Chemistry began dissecting the "hyper-active" insect antifreeze proteins (AFPs) that let beetle larvae survive -30 °C winters. Their high-resolution work (β -helix crystal at 1.3 Å, Nature 2000) revealed the threonine-lined ice-binding surface that makes these peptides thousands of times more potent than fish AFPs.

Building on that insight, Cal State investigators led by Xin Wen engineered cysteine-free, fermentation-friendly AFP variants and, in 2021, secured broad U.S. patent protection for using them to safeguard food, biologics and even whole cells during freezing and thawing.³ The know-how was licensed via ingredient suppliers to Unilever, whose research and development team had been seeking an ice-structuring protein that could be made at industrial scale without killing Arctic fish; the CSU-derived yeast-expressed AFP met the brief.

After receiving EU Novel Foods clearance in 2009, Unilever rolled the protein—labeled simply "ice-structuring protein"—into Popsicle novelties, Good Humor bars and Breyers Light Double-Churned ice-cream bars sold across the U.S., Europe, Australia and Mexico, cutting fat and calories by up to 50% while slashing cold-chain waste through slower melt and finer ice crystals. Two decades after the first CSU crystal screens, billions of servings later, the once-esoteric beetle protein has become everyday biotech—showing how a modest campus lab discovery can ripple out to reshape a global food category and, by extension, public calorie intake and freezer-energy use.

ENERGY AND CLIMATE RESILIENCE



As California transitions to a clean energy economy and continues its leadership in climate action, the CSU is fueling the shift and advancing cutting-edge research, supporting community-driven climate solutions and empowering the next generation of climate and energy leaders.

KEY CSU ACTIVITIES

Educating the Energy Workforce of the Future:

The CSU is the state's leading institution of graduates in fields critical to the clean energy transition. Engineering, environmental science, sustainable design and energy systems programs prepare thousands of students annually for leadership in the fast-growing clean energy sector. The CSU offers a range of energy-focused degree programs across its campuses, such as

¹ [Prommune's swine flu vaccine succeeds in latest animal trial - UNeMed](#)

² [Donald P. Shiley BioScience Center: About](#)

³ assignee: The Board of Trustees of the California State University, US 11 110 176 B2

CSU Energy Research Centers

Schatz Energy Research Center

Cal Poly Humboldt

California Energy Research Center

CSU Bakersfield

Center for Energy & Environmental Research & Services

Cal State Long Beach

Energy Research Center

CSUN

Center for Energy and Sustainability

Cal State LA

Sustainable Technology Optimization Research Center

Sacramento State

Electric Power Institute

Cal Poly San Luis Obispo

Sustainable Energy Center

San Diego State

Energy Systems Engineering bachelor's or a master's in sustainability as well as certificate programs and pathways in topics such as renewable energy, battery storage, building electrification and EV infrastructure.

Transformative Research, Real-World Solutions:

The CSU hosts research centers dedicated to advancing energy innovation, sustainability and climate resilience. These centers engage in cutting-edge research, foster industry partnerships and provide educational opportunities to address California's energy and sustainability challenges including grid resilience, offshore wind power, climate modeling and microgrid design.

MULTICAMPUS COLLABORATION: THE CSU CONSORTIUM ON CLIMATE ADAPTATION

In 2025, the CSU announced the launch of the CSU Consortium on Climate Adaptation (CSU ADAPT), which brings together faculty experts, staff and students from across the system to amplify their work on climate change adaptation

and climate action education and research. This inclusive consortium will support student success and preparation for emerging career opportunities, while maximizing the impact of existing climate research occurring at the CSU. The consortium will also serve to facilitate greater community engagement and partnerships with high schools, community colleges and University of California campuses. Examples of the CSU's research on climate adaptation and resilience are detailed in the spotlight section that follows.

IMPACT SPOTLIGHTS

Microgrids for Reliable, Cleaner Power

California's energy system faces challenges including grid reliability during extreme weather and wildfires, balancing intermittent energy resources, and the need to reduce emissions of pollutants and greenhouse gases. Microgrids are a solution for all these issues—strengthening local energy resilience, improving local air quality and providing reliable power to critical facilities during system outages. The Schatz Energy Research Center at Cal Poly Humboldt has been a leader in microgrid design and deployment for over a decade.

In 2017, Schatz researchers completed a project to deploy a solar-based microgrid for the Blue Lake Rancheria Tribe, which enabled the Rancheria campus to function as a Red Cross emergency evacuation center and provide critical support during outages. This microgrid won the DistribuTECH Project of the Year award for Distributed Energy Resources Grid Integration, and it has been recognized for providing lifesaving



services during wildfire-driven power shutoff events. In 2020, a second solar microgrid was brought online at the Rancheria to demonstrate the potential for “plug and play” small business microgrids to provide hyperlocal resiliency.

In 2022, Schatz Center researchers completed the first completely renewable, front-of-the-meter, multi-customer microgrid in California. This groundbreaking system at the Redwood Coast Airport is now the model for PG&E’s Community Microgrid Enablement Program, and it demonstrates how community microgrid development can support local resiliency via renewable energy. Development of this project also helped deepen CSU’s partnerships with the Hoopa Valley, Karuk, Yurok and Blue Lake Rancheria Tribes, laying the foundation for more ambitious collaborations to come.

Today, Cal Poly Humboldt is collaborating with its partners on the development of a nested microgrid system—referred to as BLR 2.0—that integrates multiple existing microgrids across Tribal Lands. This project enables testing and demonstration of control system logic for substation-scale applications, contributing to scalable solutions in distributed energy and reinforcing the university’s role in applied research and community-based energy innovation. The university is also advancing campus energy resilience and workforce development through a microgrid project spearheaded by the Facilities Management department and supported by a Schatz team. Beyond enhancing power reliability for the campus, the microgrid is designed as a hands-on instructional platform for students in engineering and related disciplines, fostering experiential learning and preparing future professionals in the energy sector.

Climate Resilience Research at the CSU

Researchers across the CSU are testing and pioneering methods to increase climate resiliency. In 2024, 11 CSU campuses were awarded \$22 million from [California Climate Action Seed and Matching Grants](#) to help the state achieve a climate-resilient future. Several of these CSU research projects, which are focused on topics



ranging from strengthening the resilience of natural systems to studying the health implications of climate change on communities, are highlighted below.

- **California Soil Carbon Accrual Project and Workforce Training Program | Chico States**
Chico State’s [Center for Regenerative Agriculture and Resilient Systems \(CRARS\)](#), along with the College of Agriculture, College of Natural Sciences and partner institutions including Cal State East Bay, received nearly \$6 million to research climate threats to agriculture in California, such as soil erosion, degradation and water availability.
- **Collaborative of Native Nations for Climate Transformation & Stewardship | San Diego State**
Co-led by San Diego State and the Climate Science Alliance, the [Collaborative of Native Nations for Climate Transformation & Stewardship \(CNNCTS\)](#) brings together Tribal nations, government agencies and universities, including Cal State Long Beach, to help establish a model for Indigenous-led land stewardship to improve the state’s climate resilience. CNNCTS secured a \$7.1 million grant through SDSU to study environmental conservation and management methods.
- **Establishing Drought Resilient Grassland Restoration Networks in California | Cal Poly Humboldt**
Grasslands make up 25% of land use in California and are integral to cattle ranching in the state, as well as natural processes such as carbon and water storage that protect the

ecosystem and industry. Awarded with \$1.5 million, a Cal Poly Humboldt-led team that includes Cal Poly San Luis Obispo, Chico State, the Wiyot Tribe and other universities, agencies and organizations will develop restoration methods to make grasslands climate resilient and ensure they continue supporting native species.

- **Improving Climate Change Resilience by Increasing Capacity for Northern California Tribal Fisheries | Cal Poly Humboldt**

With a \$1.1 million grant, a separate Cal Poly Humboldt team is working with Tribal and government partners to promote better research and monitoring of fisheries on the northern coast of California that cultivate fish species significant to local Tribes.

- **Sustainable Land Initiative | Cal Poly San Luis Obispo**

The Initiative for Climate Leadership and Resilience (ICLR) at Cal Poly San Luis Obispo and its partner the Upper Salinas Las Tablas Resource Conservation District is using its \$1.75 million grant to launch the Sustainable Land Initiative to implement climate-smart agriculture in the Central Coast of California.

- **Advancing Climate Resilience through Youth-led Action Research in Oakland | Cal State East Bay**

Supported by a \$1.94 million grant, Cal State East Bay, San Francisco State, UC Berkeley and other partner organizations are equipping the next generation of leaders for climate advocacy.

- **Rural Heat Islands: Mapping and Mitigating Farmworker Exposure to Heat Stress | San Diego State**

Although urban heat islands have received significant attention, a team from San Diego State is using its \$1.9 million grant to research the heat stress effects of rural heat islands on farmworkers in Imperial Valley, where temperatures often exceed 100 degrees more than 100 days per year.

- **Implementing an Intervention to Reduce Heat Stress and Chemical Exposures | San Diego State**

Another San Diego State research group was awarded \$1 million to reduce the instances of heat-related illness and chemical exposure from the highly polluted Salton Sea among Imperial Valley's farmworkers.

These projects exemplify CSU's commitment to conducting applied research with its community partners, focusing on the most pressing issues faced by the state and its citizens.



AGRICULTURE



California's agricultural sector is a cornerstone of the state's economy and a vital source of employment. It produces over 400 commodities, generates over \$250 billion in economic activity,¹ supports hundreds of thousands of jobs directly in farming and millions more through related industries, and plays a key role in national and global food supply chains. California agriculture faces a range of challenges, including limited water resources, climate change impacts, crop loss from disease and pests, and labor shortages. The CSU plays a pivotal role in addressing these issues and advancing agriculture through education, workforce development and applied research.

KEY CSU ACTIVITIES

Degree Programs:

Across its campuses, which span the range of agricultural and ecological regions of the state, the CSU offers comprehensive programs in agricultural sciences and concentrations in agricultural biology, economics, sustainable agriculture and general agriculture. These programs blend academic instruction with experiential learning and supervised research activities, preparing students for productive careers in the dynamic global food and agricultural industry. In 2023-24, the CSU enrolled over 17,000 agriculture and natural resources majors, dramatically contributing to the state's agricultural workforce.

Impacts on California Agriculture

- **Workforce Development:** CSU graduates fill over 60% of degree-holding roles in California agriculture, spanning farm management, processing and policy.
- **Research and Innovation:** The CSU's practical, regionally focused research advances crop science, irrigation, pest management, and sustainability, driving innovations adopted by farms and agribusinesses.
- **Industry Partnerships:** Strong partnerships with growers, commodity boards, and agencies provide technical support and hands-on training for students.
- **Support for Rural Communities:** CSU campuses serve as economic anchors in rural regions, supporting local economies and improving the viability of regional agriculture. Through outreach and education programs, the CSU supports local farmers, including small and underserved producers.
- **Sustainability and Policy Leadership:** The CSU promotes sustainable practices in agriculture, helping the industry adapt to climate change and environmental regulations.

Campus Centers and Institutes (CCIs):

CSU hosts 10 Campus Centers and Institutes (CCIs) affiliated with various CSUs and dedicated to agricultural research and outreach. The CCIs offer noncredit instruction, disseminate information and provide services aimed at advancing agricultural practices and knowledge throughout the state. Each CCI focuses on specific aspects of agriculture, such as sustainable farming practices, crop science, agricultural economics, and environmental resource management. By leveraging the expertise of CSU

¹ Total cash receipts in 2022 were \$59 billion (California Department of Food and Agriculture) and total economic impact (including multiplier effects) in 2020 was estimated to be \$263 billion (UC Agricultural Issues Center)

faculty and researchers, these centers conduct applied research projects that address real-world challenges in agriculture. They also facilitate technology transfer and innovation adoption by collaborating with industry partners and community stakeholders.

MULTICAMPUS COLLABORATION: ARI

The CSU's Agricultural Research Institute (ARI) is a comprehensive applied agricultural and environmental research program that joins the CSU's four colleges of agriculture (Chico State, Fresno State, Cal Poly Pomona and Cal Poly San Luis Obispo) and two associate campuses (Cal Poly Humboldt and Cal State Monterey Bay) with the state's agriculture and natural resources industries and allied business communities. ARI engages the collective expertise of CSU colleges of agriculture and other related programs to conduct applied research that benefits California agriculture, while also cultivating the next generation of agricultural leaders. ARI works to connect traditional agriculture fields with researchers in other disciplines (e.g., AI, robotics and engineering) to develop innovative solutions facing the industry. Since its inception in 1999, ARI has awarded over \$228 million in funding for 1,287 campus projects addressing California farm, ranch and consumer challenges such as improving food quality, increasing productivity and economic viability, and managing natural resources.¹

IMPACT SPOTLIGHTS

Using Insectivorous Birds for Agricultural Pest Management

CSU research has shown that integrating insectivorous birds into agricultural pest management can significantly reduce reliance on chemical pesticides and enhance biodiversity and crop productivity. Studies led by Cal Poly Humboldt and University of California, Davis have found that installing nest boxes in vineyards, particularly to attract Western Bluebirds, boosted bird diversity

and abundance. This resulted in 2.4 times more sentinel prey (beet armyworms) being removed compared with areas that had no nest boxes. In walnut orchards, research found that the presence of insectivorous birds helped suppress populations of codling moth, a major pest, highlighting the importance of preserving natural habitats near farmland. These findings support avian conservation as a practical and sustainable component of integrated pest management in California agriculture.

Genetic Advancements for Enhanced Nitrogen Use Efficiency

Under the leadership of Professor David Still, Cal Poly Pomona's research team has focused on identifying genetic traits in lettuce that govern nitrogen and water use. By pinpointing DNA markers associated with these traits, the team aims to develop lettuce cultivars that can thrive with less fertilizer use. This approach not only addresses the challenges posed by water scarcity and environmental concerns but also supports the \$2 billion lettuce industry based predominantly in California and Arizona.

Mapping Soil Burn Severity Using Digital Soil Mapping Technology

A 2024 study led by Stewart G. Wilson at Cal Poly San Luis Obispo introduced a new application of digital soil mapping (DSM) to assess soil burn severity (SBS) following wildfires. Focusing on the Creek Fire, which scorched 154,000 hectares in California's Sierra Nevada, the researchers employed a novel approach by integrating 169 ground-based SBS observations with raster data on soil, fuel and vegetation conditions, which led to enhanced precision and efficiency of post-fire evaluations. Their findings suggest that current manual assessments may underestimate burn impacts, potentially hindering recovery efforts. This work can lead to improved evaluations of fire-impacted soils, better targeting of limited post-fire recovery resources, and enhancement of fire management approaches and policies.

¹ Agricultural Research Institute (ARI) | CSU

Remote-Sensing Platform Improves Irrigation Efficiency

Cal Poly San Luis Obispo's Irrigation Training & Research Center (ITRC) has developed the "METRIC" remote-sensing platform, which uses Landsat thermal imagery and local weather data to calculate field-scale evapotranspiration for every irrigated parcel in the San Joaquin Valley. Growers and groundwater-sustainability agencies now receive monthly "water-use bills" showing exactly how much water each crop consumed. This information allows growers to adjust irrigation schedules, decide which acres to fallow and document compliance with the state's Sustainable Groundwater Management Act (SGMA). Early pilots have shown water-use reporting accuracy within +/-5% and guided shifts to deficit-irrigation strategies that save up to 15% applied water without yield loss, protecting both farm profit and regional aquifers.¹

Flux Towers Help Farms Implement Regenerative Management Practices

Backed by a \$6 million California Climate Action Matching Grant, Chico State scientists at the Center for Regenerative Agriculture & Resilient Systems set up special monitoring equipment called "flux towers" on farms across the state to compare conventional management practices with regenerative ones such as planting multispecies cover crops, diversified crop rotations, and avoiding tilling. The data show that regenerative fields are capturing significant amounts of carbon in the soil, holding 10-15% more water, and cutting synthetic fertilizer needs by a third. These findings are feeding directly into a new statewide Technical Assistance Provider certificate that is training hundreds of advisors and producers to scale climate-smart practices across California's 24 million agricultural acres.²

Automated Pesticide and Disease-Management Program for Strawberries

In partnership with the California Strawberry Commission and the U.S. Department of

Agriculture's Agricultural Research Service, the Strawberry Center at Cal Poly San Luis Obispo has developed a suite of field robots and UV-light rigs that target pests and pathogens without fumigants. Prototype "Heated Hole Puncher" and UV-C gantry systems have reduced verticillium wilt and mite infestation by 60% to 90% in on-farm trials while cutting pesticide use by more than 40% and saving growers an estimated \$2,500 per acre in labor costs. The center's annual Field Day draws more than 400 growers and technology firms, accelerating adoption of these tools across the state's \$3-billion strawberry industry and supporting a safer, more sustainable workforce.³

WATER



Water is one of California's most essential and contested resources. It underpins the state's vast agricultural economy, sustains over 39 million residents and supports diverse ecosystems from coastal wetlands to inland watersheds. Yet the state faces an increasingly precarious water future because of drought cycles, climate change, groundwater overdraft, aging infrastructure and persistent water quality challenges. The CSU—with its geographically diverse campuses, water-focused research institutes, collaborative networks and industry partnerships—is leading efforts to understand, manage and protect California's most precious resource.

¹ magazine.calpoly.edu

² <https://www.csuchico.edu/regenerativeagriculture/climate-action-grant.shtml>

³ <https://strawberry.calpoly.edu/automation-program>

KEY CSU ACTIVITIES

Water-Focused Institutes and Programs:

Each year, thousands of students—from first-generation undergraduates to mid-career professionals—receive hands-on training at one of CSU's more than 30 specialized institutes and programs¹ dedicated to water education and research. These centers represent a dynamic engine for innovation, training and local impact. Whether focused on hydrology, water quality, resource policy, or infrastructure management, each contributes to a unique facet of the state's water resilience. Graduates move directly into roles at municipal utilities, regional water boards, consulting firms and startups, providing the skilled workforce that keeps California's complex water system functioning. State agencies rely on CSU faculty for applied research that helps shape regulations on water supply conservation and resiliency. And underserved communities turn to campus programs for technical assistance and capacity building. Three of CSU's water-focused campus centers are profiled below.

The **Office of Water Programs (OWP)** at Sacramento State protects public health by improving water quality throughout California. It is committed to socially responsible and science-based solutions. One of OWP's most visible impacts is a statewide initiative to test drinking water for lead contamination in childcare centers (detailed below). In addition to its project work, OWP supports California's water sector through technical training, applied research and public education. It produces 20 widely used training manuals and offers more than 50 associated courses for water and wastewater operators, helping to build a skilled and resilient workforce. OWP also partners with agencies to develop cost-effective strategies in critical areas such as emergency action plans, stormwater management and drinking water safety.

Another notable example is **Blue Gold** at San Diego State, a research initiative focused on advancing understanding and solutions for water scarcity, using the San Diego and U.S.-Mexico border region

as a model that can be applied in other water-scarce regions. The group has members from departments of geography; civil, construction and environmental engineering; public health; and earth and environmental science. The group offers undergraduate and graduate students hands-on experience in hydrological modeling, laboratory methods and environmental data analysis. Importantly, the program's active job board, strong mentoring and partnerships with local agencies provide students with strong career development. Alumni have gone on to assume influential roles in both government and private industry, bringing CSU-honed expertise to some of California's most pressing water issues.

At Fresno State, the **Division of Continuing and Global Education** provides cutting-edge professional development through its collaboration with the American Water College. Together, they offer online certificate programs tailored for the water and utility workforce. Certificates available include those in water treatment technology, transmission technology, and effective utility management. These flexible programs enable working professionals to expand their technical knowledge and advance their careers without leaving their communities.

MULTICAMPUS COLLABORATION: CSU-WATER

CSU-WATER (Water Advocacy Toward Education and Research) is the system's multicampus initiative to promote strategic alignment among campuses, enabling a coordinated, interdisciplinary approach to research, education and community engagement around water resiliency in California. CSU-WATER coordinates joint research projects, hosts statewide water symposia and connects students with mentors and professionals in the water sector.

CSU-WATER also facilitates partnerships between CSU campuses, major water agencies and other stakeholders in California. These collaborations ensure that academic research and training are aligned with real-world challenges and that students are prepared to fill critical workforce deficiencies and needs. Examples include cooperative projects with municipal utilities,

¹ <https://www.calstate.edu/impact-of-the-csu/research/water/Pages/institutes-and-programs.aspx>

regional water quality control boards and state agencies focused on groundwater management and pollution prevention. By leveraging the distinct expertise of each campus, CSU-WATER exemplifies how a public university system can scale solutions to statewide challenges.

IMPACT SPOTLIGHTS

Lead Testing in Drinking Water at Daycare Centers

The **Office of Water Programs (OWP)** at Sacramento State plays an impactful role in safeguarding children's health. Its comprehensive program to test and remediate lead concentrations in drinking water at licensed California Childcare Centers (CCCs) led to researchers quantifying levels of lead contamination in drinking water, prompting remediation action by childcare centers.¹ This project, funded by the California State Water Resources Control Board and the Department of Social Services, underscores the CSU's ability to protect public health through applied research and community service. Key impacts of this OWP work include:

- 1 Extensive Statewide Testing:** OWP tested for lead at over 3,000 CCC locations, collecting samples from more than 16,000 water outlets. Analysis reveals that one in 12 water outlets exceeded the state water safety level for childcare centers of 5.5 micrograms per liter. Such outlets are immediately taken out of service. The testing program reduced the exposure to lead for the children who use those outlets.
- 2 Targeted Remediation Efforts:** OWP facilitated remediation measures, including the replacement of fixtures and components contributing to lead contamination. The program emphasized the importance of addressing specific plumbing elements such as angle stops and fixtures, which appear to be the most

common sources of lead leaching.

- 3 Comprehensive Outreach and Support:** Recognizing the diversity of CCCs across the state, OWP implemented an extensive outreach strategy to assist centers in the testing process. This included providing technical assistance, developing educational materials, and offering guidance on compliance with state requirements.
- 4 Data Management and Analysis:** OWP established robust data management systems to track testing results, prioritize facilities based on risk factors and monitor remediation progress. This systematic approach ensured efficient allocation of resources and timely interventions where needed.
- 5 Policy and Programmatic Insights:** The project data will support broader discussions on water quality testing and remediation requirements in California for lead and other contaminants.

The Office of Water Programs has contributed greatly to boosting the safety of drinking water in childcare settings, enhancing the well-being of California's youngest residents. In addition, the OWP outcome underscores the importance of integrating technical expertise into the delivery of projects that define and address environmental health challenges.

Tijuana River Water Quality

San Diego State's **Blue Gold** initiative has markedly improved the understanding and mitigation of environmental and public health challenges associated with the Tijuana River. This transboundary waterway frequently transports untreated sewage, industrial waste and stormwater runoff from Mexico into Southern California, regularly polluting the Tijuana River Estuary and the Pacific coastline. Key impacts of the Blue Gold team's work include:

¹ <https://www.calstate.edu/impact-of-the-csu/research/water/Documents/conference/2023/testing-and-remediating-lead-concentrations-in-drinking-water.pdf>

- 1 Development of Real-Time Water Quality Monitoring Systems:** SDSU researchers have implemented a multisensor approach to monitor water quality in the Tijuana River. They deployed fluorescence-based sensors and hyperspectral cameras that detect the optical signatures of sewage, while turbidity sensors measure sediment loads. This technology enables real-time tracking of pollution events, providing valuable data to inform binational efforts addressing cross-border contamination.
- 2 Early Warning Systems for Coastal Contamination:** The introduction of these sensors has led to the establishment of early warning systems that alert communities and authorities to contamination events. These systems protect public health, allowing for timely beach closures and other preventive measures.
- 3 Research on Airborne Transmission of Pollutants:** SDSU's studies have highlighted the potential for pollutants from the Tijuana River to become aerosolized, posing additional health risks to nearby communities. This research underscores the importance of comprehensive environmental monitoring that considers both waterborne and airborne pathways of exposure.
- 4 Community Health Initiatives:** With support from the Prebys Foundation, SDSU's School of Public Health has launched extensive studies looking at the health impacts of sewage runoff in border communities. These initiatives aim to assess exposure risks and inform strategies to mitigate pollution's effects on vulnerable populations.

By combining technological innovation with community engagement, SDSU's Blue Gold initiative contributes to the development of effective solutions for managing transboundary water pollution and safeguarding public health.

The California State University is a linchpin in the state's response to water challenges. Through its distributed network of specialized programs, dedicated faculty, engaged students and strong industry partnerships, the CSU is advancing

water science, shaping environmental policy, and preparing California's next generation of leaders to manage this precious resource.

COASTAL AND MARINE RESOURCES



California's marine resources are central to the state's economy, environment and cultural identity. Stretching over 800 miles, the coastline supports diverse ecosystems from kelp forests and estuaries to deep ocean habitats, each of which are home to thousands of marine species and provides essential services such as species habitat, shoreline protection, and carbon sequestration. These ecosystems hold deep cultural and recreational value for California's residents. They also drive the state's tourism, fishing and shipping industries, generating billions in revenue and supporting hundreds of thousands of jobs. But threats like pollution, overfishing, habitat loss, and climate change jeopardize their health and sustainability. The CSU is addressing these challenges by preparing future marine science leaders, operating a statewide network of marine labs and conducting policy-relevant research on issues of critical importance.

KEY CSU ACTIVITIES

Ten CSU campuses offer formal degree programs related to marine resources—including marine science, marine biology, fisheries biology, and oceanography—collectively preparing thousands of students each year for careers focused on ocean and coastal resources. During the 2023-24

academic year, the CSU enrolled more than 1,500 students in marine and ocean related studies and issued 216 related degrees.¹

The CSU's network of research centers and institutes—including research laboratories, oceangoing vessels and scientific diving programs—provides essential marine research infrastructure and workforce training. They support hands-on education, applied research and community outreach. A sampling of these facilities includes:

- The **Coastal and Marine Institute Laboratory** at San Diego State is a leading urban marine research facility on San Diego Bay. It features advanced seawater systems, wet labs and dive and boating infrastructure. CMIL supports interdisciplinary research on coastal ecology, pollution, aquaculture and climate impacts through partnerships with agencies such as the United States Geological Survey and CSU COAST. The laboratory also offers a summer research program that provides undergraduates with hands-on training and prepares them for careers in marine science and environmental management.
- The **Center for Coastal Marine Sciences** at Cal Poly San Luis Obispo is an interdisciplinary hub that promotes hands-on education through extensive fieldwork and laboratory research. At the 3,000-foot Cal Poly Pier in Avila Beach, about 1,500 students engage every year in researching coastal habitats such as kelp forests, intertidal zones and estuarine systems. Through partnerships including SLOSEA (the San Luis Obispo Science and Ecosystem Alliance), CCMS applies ecosystem-based management approaches to regional issues such as fisheries sustainability, invasive species, and climate adaptation.
- The **Marine Science Research** program (formerly known as the **Institute for Applied Marine Ecology**) at Cal State Monterey Bay bridges cutting-edge ecological science and real-world coastal management by partnering

student researchers directly with government and nongovernmental organization stakeholders to inform policy and conservation efforts. It supports a variety of resources—such as a small-boat fleet, scientific diving, and geospatial and mapping labs—empowering undergraduates and graduates to drive applied research to advance environmental stewardship along California's coast.

- The **Humboldt Marine & Coastal Sciences Institute** is a collaborative, interdisciplinary initiative that unites 22 faculty across eight academic departments at Cal Poly Humboldt to promote marine and coastal research, education and outreach. Anchored by the R/V North Wind, the Telonicher Marine Lab and a small-boat fleet, MCSI works with regional stakeholders including Tribes, governmental agencies and nongovernmental organizations to enhance scientific capacity and applied stewardship of California's North Coast ecosystems.
- The **Moss Landing Marine Laboratories** administered by San José State, is a premier marine science consortium serving northern and central CSUs, offering graduate-level marine science research and hands-on training in marine ecology, oceanography and marine geology. Situated at the head of the Monterey Submarine Canyon and adjacent to Elkhorn Slough, MLML operates a fleet of small boats and research vessels to facilitate field-based research across local, regional and global marine environments. The center has secured hundreds of millions of dollars in research funding and leads projects on aquaculture, ocean acidification and biodiversity restoration. Its public outreach includes an annual open house.

MULTICAMPUS COLLABORATION: COAST

The **CSU Council on Ocean Affairs, Science & Technology (COAST)** is vital to the advancement of marine and coastal science across the CSU campuses. Since its establishment in 2008, COAST has built a collaborative framework that supports

¹ ICF estimate based on CSU degrees issued and enrollment 2023-24 data

basic, applied and interdisciplinary research into some of California's most pressing issues: sea-level rise, habitat loss, marine pollution, and sustainable fisheries. By connecting scientists systemwide and securing millions of dollars to support solution-oriented research, COAST elevates CSU science, showcases its broad impacts and benefits and is recognized as a trusted resource in the stewardship of California's ocean and coastal resources. COAST has also emerged as a nationally recognized leader in expanding workforce participation in marine and coastal science.

Workforce Development:

In 2022, COAST launched its pioneering Field Experiences Support Program to provide undergraduate students with the financial resources needed to engage in transformative field research experiences, expanding access for students from diverse backgrounds to careers in marine science. One of the most critical aspects of this work is ensuring that students feel welcomed and valued in the field and develop a strong scientific identity. Combined with the CSU's record of advancing social mobility, COAST significantly enhances student success and supports strong postgraduation outcomes.

To date, COAST has made over 2,500 student awards. In the 2024-25 academic year, COAST issued 163 awards to undergraduate students and 87 awards to graduate students. Each summer, COAST places students in paid internships with state and federal agencies and nonprofits, helping them to launch careers in STEM fields, resource management and environmental policy.

State Partnerships:

COAST collaborates with state agencies that include the CA Coastal Commission, CA Energy Commission, CA Department of Fish and Wildlife, CA Ocean Protection Council, State Coastal Conservancy, State Lands Commission, State Parks, and State Water Resources Control Board. These partnerships ensure that COAST-funded research directly informs state policy decisions and regional planning efforts.

Research Funding:

COAST provides an array of funding opportunities to support marine and coastal research across the CSU. These programs aim to stimulate scientific inquiry, enhance educational experiences and foster collaboration among students, faculty and external partners. Since its inception, COAST has provided over \$10 million in funding to CSU faculty and students to support basic, applied and solution-oriented scientific research. It is projected to invest more than \$1.1 million in 2025-26.

Informing State Policymaking:

COAST plays a pivotal role in informing state and federal decision making by facilitating science-based dialogues between researchers and policymakers. COAST organizes legislative briefings and expert panels to provide evidence-based insights on pressing ocean and coastal issues. These sessions are responsive to requests from legislators and natural resource management agencies, ensuring that policy decisions are grounded in the best available science. In 2019, COAST established the **State Science Information Needs Program** (SSINP) to fund research directly addressing state and national needs. To date, impactful policy-relevant research has been funded in the areas of microplastics, coastal mitigation and habitat restoration, and offshore wind energy development.

IMPACT SPOTLIGHT: OFFSHORE WIND POWER IN CALIFORNIA

Offshore wind power is an important resource for addressing both climate and energy challenges, especially in coastal states like California. Floating offshore wind turbines can generate large amounts of clean, renewable electricity by harnessing strong and consistent winds far from shore, helping to decarbonize the grid and meet ambitious climate targets. Offshore wind development can also drive major economic benefits, including thousands of well-paying construction, operations and supply chain jobs. These developments strengthen regional energy resilience, stimulate investment in coastal infrastructure and foster innovation in marine technology.

But offshore wind power, especially floating offshore wind infrastructure as planned off the California coast, faces significant challenges including technical and infrastructure barriers, environmental concerns, permitting and regulatory complexity, and workforce and supply chain readiness. CSU researchers are working to help the state address these challenges and realize the full potential of offshore wind energy, while ensuring that its development is sustainable, equitable and beneficial for both people and the environment.

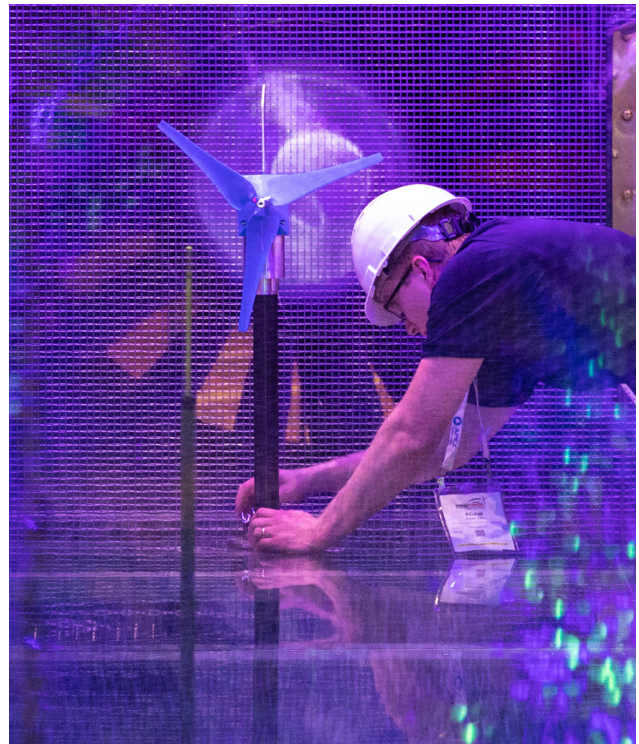
The **Pacific Offshore Wind Consortium (POWC)** is a collaborative effort led by Cal Poly Humboldt, Cal Poly San Luis Obispo and Oregon State University. POWC pools expertise and community engagement efforts to better support floating offshore wind research and workforce training. Since 2018, POWC's core institutions—Cal Poly Humboldt's Schatz Energy Research Center, Cal Poly San Luis Obispo's Center for Coastal Marine Sciences and Oregon State's Pacific Marine Energy Center—have secured over \$12 million in state and federal grants and \$1.6 million from private partners. This funding supports robust research on offshore wind feasibility, environmental monitoring and transmission planning that will support informed and responsible offshore wind development along the West Coast. These studies include:

- **Seabird Collision Risk Modeling:** Schatz Energy Research Center researchers have produced over 30 detailed reports including a recent "Seabirds in 3D" framework that model seabird densities, flight behaviors and collision vulnerability within turbine rotor zones. These studies integrate wind energy potential with bird movement data to identify areas of high collision risk, guiding siting and avoidance strategies.
- **Baseline Environmental and Ecological Assessments:** Cal Poly San Luis Obispo's Center for Coastal Marine Sciences, in coordination with POWC, has completed comprehensive baseline surveys in Morro

Bay and potential lease zones. These include seabird and marine mammal counts, fish and benthic habitat mapping and evaluations of entanglement risk, laying critical groundwork for monitoring and regulatory compliance.

- **Technical Infrastructure and Transmission Studies:** POWC and partner institutions have conducted feasibility studies on port readiness, wind lease areas and onshore/offshore transmission needs. This work incorporates seabed mapping, cable corridor planning and assessments of environmental and construction impacts, ensuring that energy deployment aligns with ecological constraints and local infrastructure capabilities.

These efforts blend ecological modeling, real-time monitoring and infrastructure planning to inform offshore wind siting, design and permitting in a manner that minimizes ecological impacts yet facilitates clean energy goals. These accomplishments position POWC and its member CSU campuses as leaders in shaping the science, community engagement and policy foundation needed to responsibly build California's floating offshore wind industry.



Collegiate Wind Competition – CSU Channel Islands

APPENDIX

APPENDIX A - IMPACT ANALYSIS METHODOLOGY

This appendix describes the methodology and data sources used to conduct the economic impact analysis.

ECONOMIC IMPACT MODELING METHODOLOGY

ICF used the IMPLAN model to estimate the state and regional economic impacts of the CSU. IMPLAN is an economic input-output model that combines a set of extensive databases related to economic factors, economic multipliers and demographic statistics with a refined and detailed system of modeling software. IMPLAN estimates three types of impacts:

- **Direct** refers to the effects on the industries that the CSU and its students directly interact with, such as construction, food and beverage establishments, retail stores, etc.
- **Indirect** refers to the supply chain impacts resulting from spending on materials, equipment and labor for CSU-related activity in directly impact industries.
- **Induced** refers to the downstream impacts in local industries caused by changes in consumer spending due to direct and indirect effects to their personal income.

The use of the IMPLAN model allows the total impacts of CSU-related activity on the regional and state economies to be estimated in the following areas:

- **Employment:** Jobs supported by CSU operation and spending. IMPLAN estimates employment by aggregated sector.
- **Labor Income:** Wages and salaries (including benefits) paid to workers in industries supported by CSU-replate spending.

- **Industry Activity:** The total economy-wide industry spending generated across sectors due to CSU-related activity. .
- **Tax Impact:** State and local tax revenues from businesses, sales, excise, and property from CSU-related activity.

DATA SOURCES

The direct economic impacts presented in the report are based on public financial data for the CSU and/or from calculations based on assumptions discussed in the following sections. All direct economic impacts were vetted and updated by each CSU campus and the California State University, Office of the Chancellor. The direct economic impacts included annual CSU operational expenditures, average (four-year) capital expenditures, auxiliary expenditures, and student expenditures.

Operational Expenditures

CSU operational expenditures were based on Financial Information Record Management System (FIRMS) data provided by the Chancellor's Office.¹ To avoid double counting with student spending, ICF excluded depreciation and fellowship and scholarship spending.

¹ Financial Information Record Management System (FIRMS)—Operating Expenses for the Year Ended June 30, 2024 (before systemwide elimination)

² Financial Information Record Management System (FIRMS)—Capital Expenditures (University) by State Fund for the Years-Ended June 30, 2024, 2023, 2022 and 2021 (Legal-Basis Only, Unaudited)

³ Financial Information Record Management System (FIRMS)—Operating Expenses for the Year Ended June 30, 2024 from audited auxiliary financial statement

Capital Expenditures

Campus capital expenditures vary year to year, so a four-year average, from 2021 to 2024, of financial statements² was used to calculate an average annual capital expenditure for each campus. Following review from the CSU's Chancellor's Office finance staff, a new calculation was implemented for the four-year average. In this report, annual capital expenses are calculated as the combination of combined cap and Right of Use (ROU) costs.

Auxiliary Expenditures

Information regarding the effect of auxiliary organizations also came from internal CSU financial reports.³ Again, to avoid double counting, ICF excluded depreciation and fellowship and scholarship spending. Because the data were not broken down by the type of auxiliary enterprise, i.e., retail store, food service area, research institute, etc., the following expenditures in each IMPLAN sector were presumed to be:

- 40% to dorms/campus housing (rental income)
- 20% to campus stores (retail bookstores)
- 20% to campus dining and cafes (food and beverage establishments)
- 20% to research activity (higher education)

These allocations of auxiliary spending are consistent with previous reports characterizing spending categories across the CSU.

Student Expenditures

A significant portion of CSU student expenditures occur at auxiliary organizations (e.g., campus housing, bookstores, campus food services and parking), which are incorporated into the auxiliary organization spending as noted above. To avoid double counting, student spending categories classified in a category under auxiliary spending are excluded from analysis under student expenditures.

There are three main spending profiles for students attending the CSU:

- Students who reside on campus
- Students who reside off campus and commute
- Students who reside with family and commute

To analyze the spending of CSU students based on residency (students that live on campus, off campus and with family), ICF determined the residency of students using enrollment data provided by the Chancellor's Office.¹ ICF used the number of students that are from the campus region (county) as a proxy for the number of students who live at home. The number of students who live on campus was assumed to be the same as the total student occupancy of campus-operated and auxiliary-operated facilities in fall 2024.² All remaining students were assumed to live off campus. These assumptions are consistent with previous iterations of CSU economic impact reports.

Student spending patterns were based on the CSU's 2023-24 estimated undergraduate cost of attendance.³ Several budget items were excluded to avoid double-counting with operational costs or campus auxiliary expenditures. For all housing types, ICF excluded spending on tuition and campus fees, which are included in operational costs. For students living on campus, food and housing expenditures were also excluded (already included in auxiliary revenues), and only half of spending on books and supplies was included, based on the assumption that students buy a portion of their books and supplies at campus stores, which are included in auxiliary revenues.

Alumni Impacts

Alumni impacts are treated differently than other spending impacts in IMPLAN because they are not expenditures by the CSU but by CSU graduates. Analysis of alumni impacts is focused on the impact of the incremental increase in income that CSU graduates earn as a result of their CSU degree. Several assumptions and data sources were used to complete this portion of the analysis, detailed below.

¹ CSU. Fall 2024 Enrollment of Students Resident in Campus County (based on Resident Code). Campus Total.

² CSU. Housing Occupancy Report. Student and Faculty/Staff. Fall 2024.

³ CSU. CSU 2024-25 Estimated undergraduate cost of attendance. Available at <https://www.calstate.edu/apply/paying-for-college/csu-costs/Pages/campus-costs-of-attendance.aspx>

⁴ United States Census Bureau. 2019. 2018 American Community Survey 5-Year Estimates. Table S2001: Earnings in the Past 12 Months.

- 1 On average, CSU students are 25 years old when they graduate. This accounts for students completing their graduate degrees, students who do not start their college education immediately out of high school and students who take more than four years to graduate.
- 2 The retirement age is 67 years old. Therefore, alumni from the class of 1981-82 up to 2023-24 are assumed to still be part of the workforce and were included in the analysis.
- 3 U.S. workers earn incrementally more as their educational attainment level increases. Annual earnings based on educational attainment (high school degree, associate degree, bachelor's degree and advance degree) in California is based on U.S. Census Bureau (USCB) data.⁴ In addition, the CSU provides estimates from alumni surveys on earnings by graduation cohort that were used to generate a temporal component of average earnings by degree.¹ The CSU post-degree earnings tracks median wages from two to 15 years, and USCB data are used for alumni earnings beyond 15 years.
- 4 Campus estimates for the percentage of Alumni who left CA and the percentage of Alumni who left the region were kept consistent with the 2020 study. Percentages used for San Jose and CSUDH were the average annual "out-migration rate" for California based on USCB data.
- 5 For each graduation year, the total earnings of CSU alumni were calculated by multiplying the number of bachelor's degree recipients remaining in California and the region by the weighted average bachelor's degree salary for that year. The calculation was repeated for master's degree holders, and the two totals were summed. This total, summed for every year back to 1981-82, provides an estimate of the total annual earnings of CSU alumni still living in California or the campus region.
- 6 The amount of total earnings attributable to the alumni's CSU degree is the difference between the weighted average salary associated with

their final educational level minus the weighted average salary associated with their previous educational level. For individuals with a master's degree, for example, the amount of earnings attributable to the alumni's CSU master's degree is the weighted average master's salary minus the weighted average bachelor's salary. For bachelor's degree holders, the amount of earnings attributable to the alumni's CSU degree is the average bachelor's salary minus the average salary for either a high school graduate or transfer student who already had some college credit.

- 7 Some students arrive at the CSU with a high school diploma only; others transfer after completing some college. The salary differences between bachelor's degree recipients and high school graduates were calculated as well as the salary difference between bachelor's degree recipients and transfer students with some college credits. These two differences were weighted based on historical data for the split between the two sources of students to the CSU (first-time freshmen with a high school diploma and transfer students). Lastly, a total earnings differential attributable to the CSU degrees was calculated by summing each graduation cohort by their respective incremental earning increase.

Community Service Hours Impacts

In addition to the direct economic spending that occurs annually, CSU students and faculty participate in service learning and service hours through community organizations and programs. To best quantify the annual impact of these service hours, ICF requested systemwide data from the Chancellor's Office. There are several nuances when quantifying impacts from volunteer hours when the data provided relate to service learning hours and direct service hours. Service learning hours is the documented time students engage in structured community service activities that integrate academic coursework with meaningful service, guided reflection and partnership with community stakeholders to meet genuine

¹ CSU. Earning Trajectories by Years Since Degree.

community-identified needs. Direct service hours is the documented time practitioners spend in face-to-face interventions or activities designed to directly address an individual's or community member's needs, such as counseling, coaching or other hands-on services. Due to the program requirement characteristics of service learning hours, ICF and CSU assumed that the direct service hours are the best estimate of system-level community service hours. However, both Cal State Monterey Bay and San Diego State had missing data from the report by the Center for Community Engagement at the Chancellor's Office, and individual campus data on direct service hours were used to aggregate the system-level estimate. It is important to note that the campus-specific direct service and learning service hours provided by Cal State Monterey and San Diego State may be categorized based on campus-specific definitions of direct service versus service learning, which could differ from the Center for Community Engagement report's definitions. Following the quantification of community service hours on a system level, ICF leveraged a report produced by Independent Sector quantifying the hourly wage of community service, which for California is \$40.14.¹ ICF multiplied the number of direct service hours by the hourly rate to estimate the annual economic value of the community service provided by the CSU.

IMPLAN MODEL CONSTRUCTION

The structure of the economic impact models presented in this report combine regional geographies and fall into one of three types: state-level results, regional results and campus-level results. All of these are constructed as Multi-Region Input-Output (MRIO) models. This structure is defined by the location of impacts within a broader geographic region. Inputs from a given campus are located within the county they occur in, and other counties within the CSU region are linked to allow for supply chain activities to remain within

the model results. State-level results are presented similarly, with inputs being located within their county of origin and all other counties in the state being linked to allow supply chain activity to remain in the model results.

COMPARISON WITH PREVIOUS ANALYSES

Since the 2019 report, broader market factors such as COVID-19, inflation and the depression of labor force earnings have occurred. Over the past two iterations of this report (2010 and 2019), direct CSU activity has jumped a substantial 59% despite numerous changes to the structure of the economy.

Since the 2019 analysis, direct CSU activity has increased, leading to a corresponding increase in the level of economic activity supported by the CSU in California. Compared with the 2019 analysis results, the number of jobs supported by the CSU increased by 6%, industry activity increased by nearly 23%, and the state and local tax revenue generated increased by 18%. Since 2019, California investment has increased by roughly 16%, and the return on investment has also increased to \$7.69 from \$6.79 in 2019. When the impact of the enhanced earnings of CSU alumni is considered, in 2019 the return on investment was \$23.26 and increased to \$31.35 in 2024.

That said, not all input metrics and results from the 2010 and the 2019 analyses are directly comparable to those presented in this report because of several methodological differences. For this analysis, ICF updated the methodology used to determine the percentage of alumni who remain in the state. The 2010 study utilized U.S. Census Bureau state-to-state migration data to determine the percentage of alumni from each campus that would remain in California after graduation. For the 2019 and current analysis, ICF used values provided by each campus to determine the number of alumni who remain and work in the state.²

¹ Independent Sector. (2025). "2025 Value of Volunteer Time Report."

² Campus estimates were kept consistent with the 2020 study. San Jose and CSUDH used the average annual "out-migration rate" for California based on USCB data

APPENDIX B - MODEL INPUTS BY CAMPUS AND REGION

MODEL INPUTS BY CAMPUS AND REGION (\$ billions 2025 USD)

All Regions		
Impact Category	Data Inputs	Entire CSU
Operational Expenditures	Total OpEx	\$9.5b
Capital Expenditures	4-Year Average	\$1.2b ¹
Auxiliary Expenses	Total Aux	\$2.2b
	Rental Housing (dorms)	\$0.9b
	Retail (bookstores)	\$0.4b
	Food & drink (cafes)	\$0.4b
	Colleges & Universities (research activity)	\$0.4b
Student Spending	Total Enrollment	453,300
	Number of students who live at home	224,000
	Average Live-at-home student budget	\$15,399
	Total Live-at-home Student Spend	\$3.5b
	Number of students who live on campus	61,500
	Average on campus student budget	\$4,398
	Total On Campus Student Spend	\$0.3b
	Number of students who live off campus	167,800
	Average off campus student budget	\$24,868
	Total Off Campus Student Spend	\$4.1b
	Total Student Spend	\$7.9b
Alumni	Total alumni earnings attributable to CSU education in CA	\$97.8b

¹ Capital costs include building maintenance, as well as software licenses and equipment costs which may require renewal every year or every few years

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

Bay Area							
Impact Category	Data Inputs	Cal State East Bay	Cal Maritime	San Francisco State	San José State	Sonoma State	Bay Area Total
Operational Expenditures	Total OpEx	\$250.1	\$63.4	\$528.2	\$633.5	\$174.5	\$1,649.7
Capital Expenditures	4-Year Average	\$34.2	\$13.2	\$96.4	\$107.5	\$28.3	\$279.6
Auxiliary Expenses	Total Aux	\$42.2	\$9.4	\$29.9	\$110.5	\$14.2	\$206.2
	Rental Housing (dorms)	\$16.9	\$3.8	\$11.9	\$44.2	\$5.7	\$82.5
	Retail (bookstores)	\$8.4	\$1.9	\$6	\$22.1	\$2.8	\$41.2
	Food & drink (cafes)	\$8.4	\$1.9	\$6	\$22.1	\$2.8	\$41.2
	Colleges & Universities (research activity)	\$8.4	\$1.9	\$6	\$22.1	\$2.8	\$41.2
Student Spending	Total Enrollment	11,800	760	23,700	32,200	5,900	74,360
	Number of students who live at home	5,200	30	4,700	14,000	1,800	25,730
	Total Live-at-home student budget	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
	Total Live-at-home Student Spend	\$95.8	\$0.5	\$78.1	\$215.1	\$26.1	\$415.6
	Number of students who live on campus	1,100	640	4,600	4,300	2,000	12,640
	Total on campus student budget	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
	Total On Campus Student Spend	\$5.4	\$3.1	\$20.8	\$17	\$5.8	\$52.1
	Number of students who live off campus	5,500	100	14,400	14,000	2,000	36,000
	Total off campus student budget	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
	Total Off Campus Student Spend	\$157.5	\$2	\$384.7	\$353.1	\$51.5	\$948.8
	Total Student Spend	\$258.7	\$5.5	\$483.6	\$585.1	\$83.4	\$1,416.3
Alumni	Total alumni earnings attributable to CSU education in CA	\$4,857.5	\$215.7	\$4,214.8	\$7,902.8	\$2,343.3	\$19,534

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

Central Coast					
Impact Category	Data Inputs	CSU Channel Islands	Cal State Monterey Bay	Cal Poly San Luis Obispo	Central Coast Total
Operational Expenditures	Total OpEx	\$175.9	\$228.1	\$659.7	\$1,063.7
Capital Expenditures	4-Year Average	\$24.4	\$23.7	\$75.3	\$123.4
Auxiliary Expenses	Total Aux	\$17.7	\$72.5	\$189.7	\$279.9
	Rental Housing (dorms)	\$7.1	\$29	\$75.9	\$112
	Retail (bookstores)	\$3.5	\$14.5	\$37.9	\$55.9
	Food & drink (cafes)	\$3.5	\$14.5	\$37.9	\$55.9
	Colleges & Universities (research activity)	\$3.5	\$14.5	\$37.9	\$55.9
Student Spending	Total Enrollment	5,000	6,300	22,300	33,600
	Number of students who live at home	3,000	2,100	1,200	6,300
	Total Live-at-home student budget	\$0.0	\$0.0	\$0.0	\$0.1
	Total Live-at-home Student Spend	\$49.2	\$33.5	\$13.2	\$95.9
	Number of students who live on campus	1,100	3,000	8,700	12,800
	Total on campus student budget	\$0.0	\$0.0	\$0.0	\$0.0
	Total On Campus Student Spend	\$4.7	\$13.5	\$30.4	\$48.6
	Number of students who live off campus	1,100	1,100	12,300	14,500
	Total off campus student budget	\$0.0	\$0.0	\$0.0	\$0.1
	Total Off Campus Student Spend	\$29.8	\$32.5	\$271.3	\$333.6
	Total Student Spend	\$83.7	\$79.5	\$314.9	\$478.1
Alumni	Total alumni earnings attributable to CSU education in CA	\$573.6	\$492.1	\$4,379	\$5,444.6

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

Los Angeles								
Impact Category	Data Inputs	Cal State Fullerton	Cal State Long Beach	CSUN	Cal State LA	CSU Dominguez Hills	Cal Poly Pomona	Los Angeles Total
Operational Expenditures	Total OpEx	\$614.2	\$690.4	\$590.8	\$399.2	\$275.3	\$437	\$3,086.3
Capital Expenditures	4-Year Average	\$66	\$47.4	\$42.4	\$64.4	\$30	\$31.3	\$281.4
Auxiliary Expenses	Total Aux	\$110.6	\$119.9	\$103.1	\$36.5	\$38.1	\$117.8	\$514.2
	Rental Housing (dorms)	\$44.2	\$48	\$41.2	\$14.6	\$15.3	\$47.1	\$210.4
	Retail (bookstores)	\$22.1	\$24	\$20.6	\$7.3	\$7.6	\$23.5	\$105.1
	Food & drink (cafes)	\$22.1	\$24	\$20.6	\$7.3	\$7.6	\$23.5	\$105.1
	Colleges & Universities (research activity)	\$22.1	\$24	\$20.6	\$7.3	\$7.6	\$23.5	\$105.1
Student Spending	Total Enrollment	41,300	39,500	36,400	24,700	14,100	26,400	182,400
	Number of students that live at home	17,000	21,800	29,000	20,800	11,600	12,800	113,000
	Total Live-at-home student budget	\$0.02	\$0.002	\$0.01	\$0.02	\$0.002	\$0.01	\$0.064
	Total Live-at-home Student Spend	\$268.4	\$333	\$396.6	\$388.7	\$201.8	\$187.8	\$1,776.3
	Number of students that live on campus	2,100	3,200	3,200	1,800	1,000	4,000	1,5300
	Total on campus student budget	\$0.005	\$0.005	\$0.004	\$0.007	\$0.004	\$0.005	\$0.03
	Total On Campus Student Spend	\$10.2	\$16	\$12.5	\$13	\$4.2	\$18.1	\$74
	Number of students that live off campus	21,900	14,600	4,100	2,100	1,500	9,600	53,800
	Total off campus student budget	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1
	Total Off Campus Student Spend	\$555.9	\$258.1	\$107.4	\$56.8	\$43.3	\$238.7	\$1,260.2
	Total Student Spend	\$834.4	\$707.1	\$516.5	\$458.6	\$249.3	\$444.6	\$3,210.5
Alumni	Total alumni earnings attributable to CSU education in CA	\$9,691.2	\$9,498.1	\$7,722.8	\$4,995	\$3,335.6	\$1,800.6	\$37,043.2

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

Inland Empire			
Impact Category	Data Inputs	Cal State San Bernardino	Inland Empire Total
Operational Expenditures	Total OpEx	\$350.2	\$350.2
Capital Expenditures	4-Year Average	\$58.3	\$58.3
Auxiliary Expenses	Total Aux	\$64.8	\$64.8
	Rental Housing (dorms)	\$25.9	\$25.9
	Retail (bookstores)	\$13	\$13
	Food & drink (cafes)	\$13	\$13
	Colleges & Universities (research activity)	\$13	\$13
Student Spending	Total Enrollment	18,500	18,500
	Number of students who live at home	10,000	10,000
	Total Live-at-home student budget	\$0.001	\$0.001
	Total Live-at-home Student Spend	\$131.5	\$131.5
	Number of students who live on campus	1,500	1,500
	Total on campus student budget	\$0.004	\$0.004
	Total On Campus Student Spend	\$6.1	\$6.1
	Number of students who live off campus	7,000	7,000
	Total off campus student budget	\$0.02	\$0.02
	Total Off Campus Student Spend	\$168.6	\$168.6
	Total Student Spend	\$306.3	\$306.3
Alumni	Total alumni earnings attributable to CSU education in CA	\$3,723	\$3,723.37

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

North Coast			
Impact Category	Data Inputs	Cal Poly Humboldt	North Coast Total
Operational Expenditures	Total OpEx	\$295.9	\$295.9
Capital Expenditures	4-Year Average	\$56.5	\$56.5
Auxiliary Expenses	Total Aux	\$62	\$62
	Rental Housing (dorms)	\$24.8	\$24.8
	Retail (bookstores)	\$12.4	\$12.4
	Food & drink (cafes)	\$12.4	\$12.4
	Colleges & Universities (research activity)	\$12.4	\$12.4
Student Spending	Total Enrollment	6,000	6,000
	Number of students who live at home	1,100	1,100
	Total Live-at-home student budget	\$0.02	\$0.02
	Total Live-at-home Student Spend	\$16.8	\$16.8
	Number of students who live on campus	1,800	1,800
	Total on campus student budget	\$0.004	\$0.004
	Total On Campus Student Spend	\$7.7	\$7.7
	Number of students who live off campus	3,000	3,000
	Total off campus student budget	\$0.02	\$0.02
	Total Off Campus Student Spend	\$56.6	\$56.6
	Total Student Spend	\$81	\$81
Alumni	Total alumni earnings attributable to CSU education in CA	\$1,293.3	\$1,293.3

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

Sacramento Valley				
Impact Category	Data Inputs	Chico State	Sacramento State	Sacramento Valley Total
Operational Expenditures	Total OpEx	\$306.5	\$532.5	\$839
Capital Expenditures	4-Year Average	\$30.5	\$44.5	\$75
Auxiliary Expenses	Total Aux	\$94	\$166.9	\$260.9
	Rental Housing (dorms)	\$37.6	\$66.8	\$104.4
	Retail (bookstores)	\$18.8	\$33.4	\$52.2
	Food & drink (cafes)	\$18.8	\$33.4	\$52.2
	Colleges & Universities (research activity)	\$18.8	\$33.4	\$52.2
Student Spending	Total Enrollment	14,000	30,200	44,200
	Number of students who live at home	2,000	13,700	15,700
	Total Live-at-home student budget	\$0.0	\$0.0	\$0.0
	Total Live-at-home Student Spend	\$28.4	\$217.7	\$246.1
	Number of students who live on campus	2,000	3,300	5,300
	Total on campus student budget	\$0.0	\$0.0	\$0.0
	Total On Campus Student Spend	\$6.8	\$16.3	\$23.1
	Number of students who live off campus	10,000	13,200	23,200
	Total off campus student budget	\$0.0	\$27,600	\$27,600
	Total Off Campus Student Spend	\$169.5	\$364.1	\$533.6
	Total Student Spend	\$204.7	\$598.2	\$802.9
Alumni	Total alumni earnings attributable to CSU education in CA	\$5,392.4	\$9,846.4	\$15,238.8

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

San Diego				
Impact Category	Data Inputs	San Diego State	Cal State San Marcos	San Diego Total
Operational Expenditures	Total OpEx	\$815	\$307.1	\$1,122.1
Capital Expenditures	4-Year Average	\$225.1	\$13.3	\$238.4
Auxiliary Expenses	Total Aux	\$433.7	\$33.3	\$467
	Rental Housing (dorms)	\$173.5	\$13.3	\$186.8
	Retail (bookstores)	\$86.7	\$6.7	\$93.4
	Food & drink (cafes)	\$86.7	\$6.7	\$93.4
	Colleges & Universities (research activity)	\$86.7	\$6.7	\$93.4
Student Spending	Total Enrollment	37,500	13,900	51,400
	Number of students who live at home	18,000	7,700	25,700
	Total Live-at-home student budget	\$0.02	\$0.01	\$0.03
	Total Live-at-home Student Spend	\$299.7	\$112	\$411.7
	Number of students who live on campus	8,200	2,000	10,200
	Total on campus student budget	\$0.00	\$0.00	\$0.01
	Total On Campus Student Spend	\$30.4	\$8.4	\$38.8
	Number of students who live off campus	11,300	4,300	15,600
	Total off campus student budget	\$0.02	\$0.03	\$0.05
	Total Off Campus Student Spend	\$261.7	\$117.7	\$379.4
	Total Student Spend	\$591.8	\$238.1	\$829.9
Alumni	Total alumni earnings attributable to CSU education in CA	\$5,286.1	\$1,835.7	\$7,121.9

MODEL INPUTS BY CAMPUS AND REGION (\$ millions 2025 USD)

San Joaquin Valley					
Impact Category	Data Inputs	CSU Bakersfield	Fresno State	Stanislaus State	San Joaquin Valley Total
Operational Expenditures	Total OpEx	\$200.5	\$425.9	\$227.4	\$853.8
Capital Expenditures	4-Year Average	\$9.6	\$64.8	\$21.4	\$95.8
Auxiliary Expenses	Total Aux	\$28.2	\$149.7	\$10.1	\$188
	Rental Housing (dorms)	\$11.3	\$59.9	\$4	\$75.2
	Retail (bookstores)	\$5.6	\$29.9	\$2	\$37.5
	Food & drink (cafes)	\$5.6	\$29.9	\$2	\$37.5
	Colleges & Universities (research activity)	\$5.6	\$29.9	\$2	\$37.5
Student Spending	Total Enrollment	9,400	23,800	9,400	42,600
	Number of students who live at home	7,500	13,600	4,900	26,000
	Total Live-at-home student budget	\$0.01	\$0.02	\$0.01	\$0.04
	Total Live-at-home Student Spend	\$109.4	\$212.5	\$72.9	\$394.8
	Number of students who live on campus	400	1,100	600	2,100
	Total on campus student budget	\$0.00	\$0.01	\$0.00	\$0.01
	Total On Campus Student Spend	\$1.5	\$5	\$2.3	\$8.8
	Number of students who live off campus	1,600	9,100	4,000	14,700
	Total off campus student budget	\$0.02	\$0.02	\$0.03	\$0.07
	Total Off Campus Student Spend	\$37	\$204.2	\$105.1	\$346.3
	Total Student Spend	\$147.9	\$421.8	\$180.3	\$750
Alumni	Total alumni earnings attributable to CSU education in CA	\$1,358.2	\$5,071.7	\$2,007.4	\$8,437.2

APPENDIX C - DETAILED ECONOMIC IMPACT RESULTS BY CAMPUS AND REGION

(\$ millions 2025 USD)

CSU Bakersfield				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	5,420	\$197.37	\$491.39	\$40.33
State Impact	5,787	\$226.63	\$584.02	\$45.87
Alumni State Impact	8,115	\$582.05	\$1,714.46	\$133.88

CSU Channel Islands				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	4,544	\$186.87	\$445.96	\$32.96
State Impact	4,770	\$204.89	\$505.80	\$36.61
Alumni State Impact	3,420	\$244.96	\$722.27	\$56.41

Chico State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	9,199	\$339.46	\$934.54	\$75.53
State Impact	9,458	\$364.97	\$1,014.19	\$79.96
Alumni State Impact	32,315	\$2,313.74	\$6,826.59	\$533.27

CSU Dominguez Hills				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	6,398	\$379.96	\$850.89	\$62.66
State Impact	6,583	\$394	\$895.28	\$65.49
Alumni State Impact	17,947	\$1,276.41	\$3,729.40	\$296.54

(\$ millions 2025 USD)

Cal State East Bay				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	6,037	\$339.5	\$804.5	\$60.1
State Impact	6,353	\$354.8	\$864	\$64.5
Alumni State Impact	28,856	\$2,049.1	\$6,032.8	\$471.5

Fresno State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	13,945	\$563.3	\$1,469.1	\$121.8
State Impact	14,554	\$616.6	\$1,638	\$121.8
Alumni State Impact	47,144	\$2,586.7	\$7,975.7	\$714.3

Cal State Fullerton				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	17,774	\$902.6	\$2,340.5	\$180.2
State Impact	18,206	\$936.3	\$2,447.3	\$186.6
Alumni State Impact	55,633	\$3,965.9	\$11,700.3	\$917.4

Cal Poly Humboldt				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	6,598	\$222.8	\$717.8	\$49.5
State Impact	7,262	\$282.3	\$905.5	\$59.2
Alumni State Impact	7,760	\$555.6	\$1,639.2	\$128

(\$ millions 2025 USD)

Cal State LA				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	10,051	\$590.30	\$1,324.10	\$98.56
State Impact	10,350	\$613.03	\$1,395.83	\$103.09
Alumni State Impact	26,875	\$1,911.43	\$5,584.80	\$444.07

Cal State Long Beach				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	16,391	\$957.2	\$2,259.6	\$175.5
State Impact	16,838	\$991.2	\$2,367	\$182.4
Alumni State Impact	51,104	\$3,634.6	\$10,619.6	\$768.8

Cal Maritime				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	1,317	\$65.9	\$146.1	\$9.4
State Impact	1,398	\$70	\$162.2	\$10.6
Alumni State Impact	1,289	\$92.2	\$271.7	\$21.2

Cal State Monterey Bay				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	5,799	\$251.1	\$579.4	\$44
State Impact	6,106	\$277	\$660.4	\$48.9
Alumni State Impact	2,949	\$211.1	\$623	\$48.7

(\$ millions 2025 USD)

CSU Northridge				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	13,484	\$799.2	\$1,804.3	\$134.3
State Impact	13,865	\$828.1	\$1,895.2	\$140.1
Alumni State Impact	41,552	\$2,955.3	\$8,634.6	\$686.6

Cal Poly Pomona				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	11,025	\$638.2	\$1,533.1	\$118.7
State Impact	11,157	\$651.3	\$1,574.2	\$121.4
Alumni State Impact	9,688	\$689	\$2,013.2	\$160.1

Sacramento State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	15,413	\$737	\$1,883.6	\$153.2
State Impact	15,997	\$793.8	\$2,059.2	\$163.9
Alumni State Impact	49,343	\$3,535.1	\$12,362.6	\$965.8

Cal State San Bernardino				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	9,064	\$406	\$981	\$76
State Impact	9,672	\$459	\$1,152	\$87
Alumni State Impact	22,016	\$1,588	\$4,666	\$364

(\$ millions 2025 USD)

San Diego State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	25,142	\$1,211.8	\$3,047.6	\$225.9
State Impact	26,003	\$1,280.8	\$3,276.2	\$239.8
Alumni State Impact	31,294	\$2,258.5	\$6,629.2	\$519

San Francisco State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	9,010	\$677.3	\$1,529.3	\$91.6
State Impact	9,742	\$717.4	\$1,667.9	\$101.7
Alumni State Impact	25,079	\$1,727.2	\$5,156.7	\$407

San Jose State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	9,883	\$892.1	\$1,819.9	\$124.4
State Impact	10,578	\$930.7	\$1,951.7	\$134
Alumni State Impact	47,380	\$3,299.7	\$9,814	\$771.5

Cal Poly San Luis Obispo				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	21,182	\$663.5	\$1,930	\$162.7
State Impact	21,827	\$722.0	\$2,109	\$173.2
Alumni State Impact	26,228	\$1,879.2	\$5,543.3	\$432.7

(\$ millions 2025 USD)

Cal State San Marcos				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	7,618	\$342.8	\$861.5	\$65.4
State Impact	7,852	\$361.5	\$923.6	\$69.2
Alumni State Impact	10,868	\$784.3	\$2,302.1	\$182.3

Sonoma State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	4,798	\$192.2	\$487.1	\$35.3
State Impact	4,910	\$197.7	\$508.8	\$36.7
Alumni State Impact	14,017	\$1,003.1	\$2,958.3	\$231

Stanislaus State				
	Employment	Labor Income	Industry Activity	Tax Impact
Regional Impact	5,936	\$235.4	\$600.7	\$50.2
State Impact	6,240	\$263.8	\$686.9	\$54.9
Alumni State Impact	11,979	\$857.9	\$2,526.7	\$197.5

APPENDIX D - GLOSSARY OF KEY TERMS

Four dimensions of Impact covered in the report include:

- 1 **Economic Impacts.** How CSU generates measurable economic value in the form of industry activity, job creation and increased earnings.
2. **Student Impacts.** How the CSU transforms lives through access to education, degree attainment, career preparation and pathways to social mobility.
3. **Industry Impacts.** How the CSU strengthens California's industries by supplying talent, driving innovation, and meeting regional and statewide workforce needs.
4. **Societal Impacts.** How the CSU's applied research addresses California's most pressing challenges, from climate resilience and water security to biotechnology and cybersecurity.

Economic Impact

Economic impact refers to the total economic output generated across sectors due to CSU-related direct spending. It captures the ripple effects of CSU operations, student expenditures, and alumni earnings on other industries such as construction, retail, hospitality and professional services. Four impact metrics are used:

- **Industry Activity** is the most common impact metric reported. It measures the total economy-wide industry spending generated across sectors due to CSU-related activity.
- **Employment** measures jobs supported by CSU-related activity. IMPLAN estimates employment by aggregated sector. The term "supported" is used to describe job impacts to clarify that the impact may not be net new jobs created but instead may sustain annual employment.
- **Labor Income** measures supported wages and salaries (including benefits) paid to workers, plus proprietor income, supported by the CSU-related activity.

- **Tax Impacts** measure state and local tax revenues from businesses, sales, excise and property from CSU-related activity.

Economic Activity

- Economic activity is generic term used throughout the report to capture the broad economy-wide impact of the CSU.

Multiplier

A multiplier is a factor used to estimate the total economic impact of direct spending. It reflects how initial CSU expenditures and student spending lead to additional rounds of spending in the economy, amplifying the total impact. It is calculated by dividing the total industry impact by the direct impact.

$$\text{Multiplier} = \text{Industry Activity} \div \text{Direct Impact}$$

Return on Investment (ROI)

ROI in the context of the CSU report refers to the economic return generated for every dollar invested by the state in the CSU system or CSU campus. For example, the report shows that each dollar of state funding yields \$7.69 in industry activity—and \$35.53 when alumni earnings are included—demonstrating the CSU's high value as a public investment.

$$\text{ROI} = \text{Industry Activity} \div \text{State Investment}$$

Direct Impact

Direct impact refers to the immediate economic effects of CSU-related activities. These impacts occur in the industry sectors where the primary activity occurs.

$$\text{Direct impact} = \text{input} - \text{regional leakage}$$

Indirect Impact

Indirect impact captures the secondary effects on industries that supply or interact with the primary industries directly affected by CSU spending. For instance, when CSU buys construction materials, it boosts demand in manufacturing and logistics sectors that support construction.

Induced Impact

Induced impacts captures the secondary effect on industries from increased wages for workers in directly and indirectly impacted industries. Workers use their income to buy goods and services, further stimulating the economy in sectors like retail, health care, and entertainment. Indirect and induced impacts together are often referred to as secondary impacts.

Leakage

Leakage refers to industry activity, employment, labor income or taxes (impacts) that are experienced outside of the region of analysis due to supply chains that extend beyond the region. For example, campuses in the North Coast may purchase supplies or services from Bay Area or out-of-state companies. These dollars are “leaked” out of the region. For some campuses and/or regions, statewide impacts are larger than regional impacts due to supply chain purchases from the regional economy that are captured at the state level.

Incremental Alumni Earnings

Incremental alumni earnings refer to the additional income that CSU graduates earn over their lifetimes (annualized) as a direct result of obtaining a CSU degree. This figure is calculated by comparing the earnings of CSU alumni to those of individuals with lower levels of education, such as high school graduates or transfer students without a bachelor’s degree. The median income for CSU alumni was determined based on CSU data (specified by degree level and years since graduation). These earnings contribute significantly to California’s economy, as alumni spend their increased income on goods and services, generating induced economic impacts across the state.

Student Spending

Student expenditure data is based on Cost of Attendance data provided by CSU. The line items included based on the student type (living with parents, living in campus housing, and living off campus) are detailed in the table below.

A significant portion of on-campus CSU student expenditures occur at auxiliary organizations (e.g., campus housing, bookstores, campus food services and parking), which are captured in the auxiliary organization spending vector. To avoid double counting, on-campus student spending on food and housing are excluded and on-campus student spending on book and supplies are discounted (50%) in student expenditures

Living With Parents	Living On Campus		Living Off Campus
Books and Supplies	Books and Supplies	50%	Books and Supplies
Food and Housing			Food and Housing
Transportation	Transportation		Transportation
Personal/Miscellaneous	Personal/Miscellaneous		Personal/Miscellaneous

Special Note: Capital Expenditures

While \$1.2 billion spent annually on capital assets may seem like a large number, the CSU has identified nearly \$31 billion in capital project needs. This includes a significant backlog in deferred maintenance of \$8.6 billion which is expected to grow by more than \$400 million annually due to inflation and aging facilities. While these figures largely represent construction related costs, it’s important to remember they also include capital software and equipment costs which may require renewal every year or every few years. The CSU has received \$803 million in one-time funding over the past two decades with a majority of this funding received between the 2019-20 and 2022-23 fiscal years to help support these expenditures. The state has also provided some ongoing funding to support Systemwide Revenue Bond debt service. Absent any future allocations by the state, the CSU may need to redirect crucial instructional dollars to ensure facilities are properly maintained to ensure student safety and an engaging learning environment.

