

Reimagining Online Education in California:

A Roadmap for Advancing
Access and Quality

OCTOBER 2023



**CALIFORNIA
COMPETES**

HIGHER EDUCATION FOR A STRONG ECONOMY

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Mission

We aim to transform California’s higher education system into an engine of economic opportunity that empowers all Californians, particularly those from underserved communities, to achieve their full potential.

Vision

We envision a California where our state and regional economies and communities thrive, fueled by equitable and racially just postsecondary and workforce outcomes.

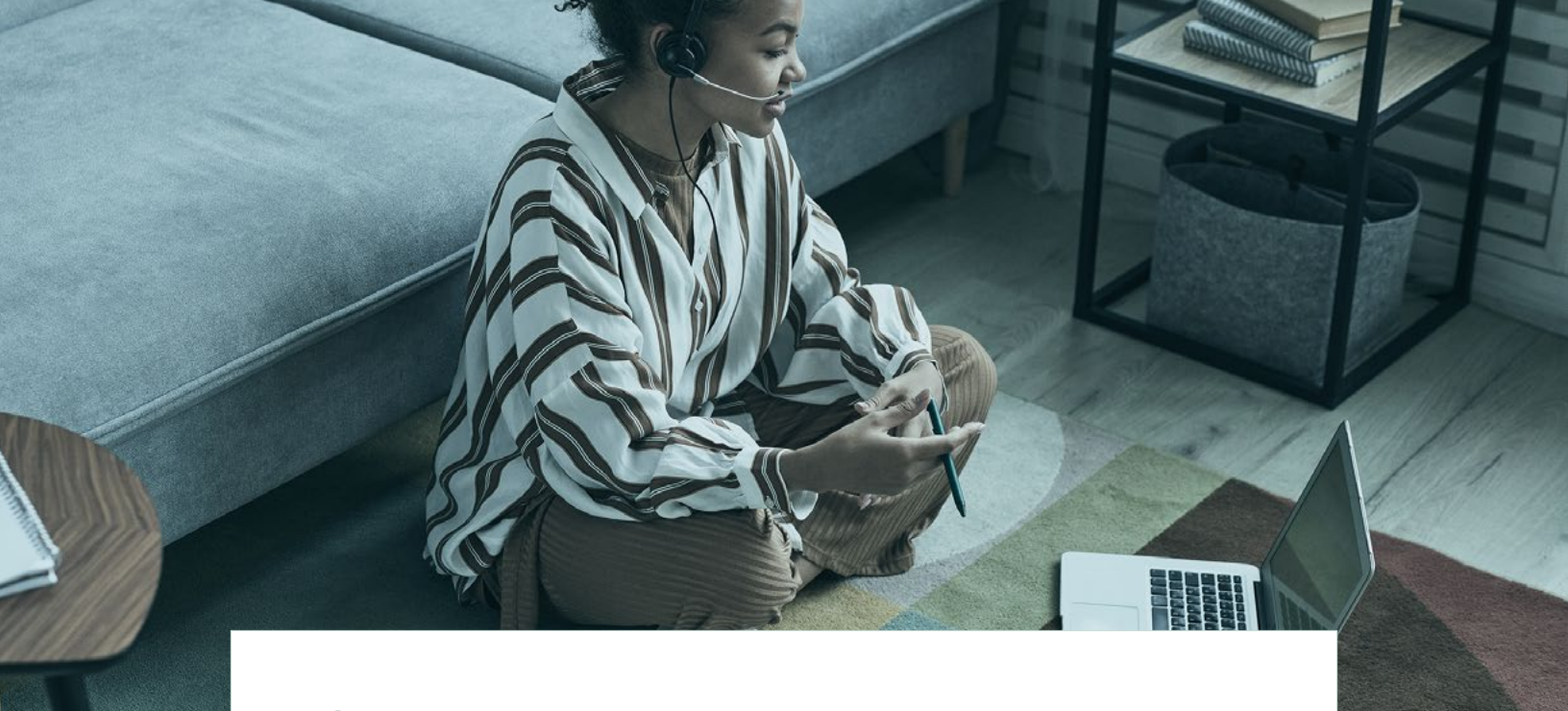
Philosophy

We view higher education as a vaccine and an antidote against economic stagnation and social stratification—for individual Californians, our communities, and the state’s economy. We believe long-term economic growth for California will be accomplished through shared prosperity.

Board of Directors

California Competes benefits from a board of directors that provides statewide reach and a breadth and depth of expertise and leadership. Our board is made up of local elected officials and former legislators, as well as business and community leaders who are committed to equity-centered policy reforms that ensure the diverse residents of this state have what they need to achieve their education and career goals.

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Despite Growing Demand and Use, Concerns for Online Education Persist

Enrollment in online courses and programs has steadily increased over the past 15 years,¹ and in early 2020, the COVID-19 pandemic catalyzed widespread use of remote courses and services. This shift prompted higher education faculty, staff, administrators, and students to reflect on online education’s role in improving access to courses, programs, and services, while considering balancing quality and cost. Californians, particularly those who have limited college access, expressed a strong demand for online courses,² programs, and services. In response, higher education leaders have declared plans to expand their online offerings,³ and policymakers have set targets for increasing online learning opportunities and provided incentives to use those opportunities.⁴

Yet despite the rising demand and use of online education (see sidebar *How We Define Online Education*), stakeholders continue to raise concerns about this mode of learning in California. Examples include the University of California’s (UC) ban of fully online degrees,⁵ continued opposition to Calbright College (the state’s online-only community college),⁶ and skepticism toward online operators like Western Governors University.⁷

Why is there such reluctance to engage in and friction about a high-demand avenue that—if systemically integrated with intention—could improve educational access, outcomes, and opportunities,⁸ especially for certain underserved populations? To better understand barriers to online education’s progress, California Competes: Higher Education for a Strong Economy sought to identify the main areas of concern, understand why they exist, and provide guidance to public postsecondary stakeholders on how to address the concerns and advance the state’s movement toward a more equitable and agile system of learning.

These findings are based on a series of interviews, focus groups, and convenings with a diverse group of college faculty and staff, as well as an analysis of research literature (see p. 14 for details on methodology and a list of participants). Our research led us to five main categories of stakeholder concern (quality, data, organizational, finance, and culture and value issues) that contextualize the optimal future state, the current state, factors contributing to the gap between the two states, and steps to bridge the gap. This work is conceptualized as a roadmap that outlines steps to strategically leverage online learning for improved student outcomes.

How We Define Online Education

We use the term “online education” to refer to teaching, learning, and service experiences that are mediated entirely or partially by web-based platforms or tools. They can be conducted live or asynchronously. This category includes individual courses, entire credential or degree programs, and support services like academic advising and career counseling connected to educational courses and programs.

Why Does Online Education Matter to California?

Demand for online education is rising and state institutions are responding.



3.9 million Californians who intend to enroll in college are **interested in exclusively online courses**.⁹



Access to online courses is the **top motivator for enrollment** in California’s Community Colleges.¹⁰








The University of California and the California State University have goals to **at least double online education enrollment**.^{11,12}

Shaping the Future of Online Education: An Examination of the Key Factors Impacting Progress in California

Reluctance to embrace online education is rooted in a struggle for power among stakeholders in California’s public higher education system: California Community Colleges (CCC), California State University (CSU), and University of California (UC). The resulting tensions are exacerbated by questions about online education’s quality, a dearth of robust data, siloed institutional administrative controls, a lack of understanding of funding models, and a culture that values tradition over change.

The following table outlines the five main areas of stakeholders’ concerns, the current state, and the possible future state of online education in California if these concerns are addressed. We acknowledge that many of these concerns apply to higher education more broadly, and the conversation around online education exposes larger systemic issues. We believe meaningful action that bridges the gap between current and future practices will allow California to have a more agile educational system that better meets the needs of all students, regardless of modality.

What Could the Future of Online Education Look Like in California?

		Current State	Future State
Focus Area	Quality 	Stakeholders question the quality of online education, citing research that shows mixed outcomes, and perpetuate the belief that quality and efficiency are inherently at odds.	» A broad and successful deployment of quality online education, along with extensive opportunities for professional development and rigorous assessment of online education, leads to the consistent delivery of high-quality online educational options.
	Data 	Stakeholders lack consistent and comprehensive metrics to understand and assess online education.	» Institutions consistently and rigorously collect quantitative and qualitative data to inform decision-making processes and perceptions of different learning modalities.
	Organizational 	Institutional structures discourage peer sharing and collaboration in online education, particularly regarding curriculum, accreditation, systems, and finance.	» Institutional structures center students in online education and leverage online modalities to improve higher education’s ability to address different student needs.
	Finance 	Stakeholders do not understand or agree upon financial aspects of online education, particularly how it is funded and what it costs to develop online courses, degree programs, and student support services.	» The state, higher education segments, and individual institutions fund online education equitably, adequately, and transparently, focusing on faculty and staff professional development and technologies that enhance student learning.
	Culture and Value 	Higher education’s deep-rooted traditions and practices hinder institutional ability to adapt to evolving needs. Competitive culture impedes the collaboration and trust necessary to advance change.	» Institutions highly value a culture of collaborative exploration and innovation, generating trust among stakeholders and widespread appreciation of the flexibility and possibilities that online education can bring with appropriate investment.



Quality

Rigorous, engaging, and meaningful experiences

What Is the Current State?

Stakeholders question the quality of online education, citing research that shows mixed outcomes, and perpetuate the belief that quality and efficiency are inherently at odds.



What Is the Optimal Future State?

A broad and successful deployment of quality online education, along with extensive opportunities for professional development and rigorous assessment of online education, leads to the consistent delivery of high-quality online educational options.

Why Is There a Gap between the Optimal and Current States?

- Confusion about what online teaching and learning is, and the assumption that it is the same as “remote teaching” (or what most experienced as a result of the emergency shift during the COVID-19 pandemic).
- Concern that:
 - Online education may result in higher student-to-faculty ratios, which could impact quality; and
 - Combining online courses from different campuses lowers quality (compared to a degree based on courses from a single campus).
- Bias toward traditional in-person instruction as the gold standard. This belief stems from early evidence that indicates online courses result in mixed to poor student outcomes and:
 - Assumptions that integral connections between peers and between students and faculty can only occur in in-person courses;
 - Beliefs that there is a trade-off between efficiency/convenience and quality;
 - Technology and academic integrity misperceptions that imply cheating occurs more readily in online education, especially with the emergence of artificial intelligence (AI); and
 - Perceptions that online education leads to insufficient academic and student support, which undermines the success of underrepresented students.
- Difficulties involving students in research studies and projects online, and the view that student participation in in-person research and projects is a necessary part of a quality college experience.



HOW CAN CALIFORNIA INSTITUTIONS BRIDGE THE GAP?

- ☑ **Showcase Success:** Elevate high-quality online courses, teachers, and programs via institutional examples and the voices of faculty and students.
- ☑ **Harness Data-Driven Insights:** Collect and analyze data to inform decision-making. Data should create the foundation for direct comparisons across modalities and include instructor assessments, student feedback, course demand, course and program satisfaction, career pathways, and educational and employment outcomes.

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Continuation of How Can California Institutions Bridge the Gap?

- ✔ **Promote Professional Development and Support:** Offer faculty professional development and employ instructional designers and educational technology enthusiasts to improve understanding and delivery of quality online education and services that lead to equitable outcomes.
- ✔ **Strengthen Course Design, Assessment, and Integrity:** Create a quality and baseline, uniform review process for all courses, regardless of modality, that emphasizes design, pedagogy, and faculty development. Establish clear policies about the use of technology tools and generative AI in coursework that uphold academic honesty and minimize use of proctored online exams in favor of assessments based on project-based learning and portfolios.
- ✔ **Invest Wisely:** Allocate resources to optimize online education quality and efficiency simultaneously.



What Are the Expected Effects of Bridging This Gap?

- Online education's potential to be a valuable and high-quality modality for learning is widely understood.
- Faculty perceptions of online education are informed by robust data, driving better responses to student demand and enhanced online learning experiences that meet student needs.
- Faculty with skills in online course design and delivery are recruited and supported through professional development training.
- Courses are intentionally designed with a focus on learning outcomes.
- Multiple support systems exist to enhance online learning, including readily available academic and student support and online tools, to ensure students taking courses online have similar supports as those taking courses in person.



How Do These Effects Propel California to the Optimal Future State?

- Higher education is more student-centric, leveraging online education to respond to different student needs.
- Online and in-person education are equally accessible and achieve equitable outcomes that deliver a quality education for all students and a quality teaching experience for all faculty.
- Stakeholders optimize for both quality and efficiency in all modalities.
- Quality online education is supported by all levels of postsecondary employees.
- Stakeholders feel a sense of shared ownership and trust in a system that serves them.



Data

That which informs decisions and protects data privacy

What Is the Current State?

Stakeholders lack consistent and comprehensive metrics to understand and assess online education.



What Is the Optimal Future State?

Institutions consistently and rigorously collect quantitative and qualitative data to inform decision-making processes and perceptions of different learning modalities.

Why Is There a Gap between the Optimal and Current States?

- Inconsistencies in data collection and reporting requirements among campuses—as well as among institutional, state, and federal entities—inhibit accurate comparisons of modalities and make it more difficult to understand students' pathways to and through institutions.
- Stakeholders lack quality data to examine perceptions about online education.
- Colleges have not devoted resources, including staff time and technology, to collecting new data and building out and maintaining data systems.
- Stakeholders worry about infringing upon student privacy, for example, when students take online exams or connect data across institutions.



HOW CAN CALIFORNIA INSTITUTIONS BRIDGE THE GAP?

- ✔ **Establish Consistent Data Collection, Analysis, and Reporting Practices:** Set consistent data definitions, standards, methods, and privacy policies to enable collection and discussion of online education data. Adequately fund institutional research capacity and make data tools easily accessible to relieve reporting burdens.
- ✔ **Seek Out Promising Practices:** Research how other states navigate data sharing between institutions and explore successful cases of data sharing within California's higher education landscape.
- ✔ **Harness the Collective Power:** Support current collaborative efforts and create additional avenues for cooperation and data sharing between segments. Leverage the size and power of segments or the entire state to capture data more efficiently, for example, by negotiating favorable software contracts or creating proprietary systems that facilitate data sharing.
- ✔ **Reskill and Upskill Staff:** Provide ongoing cross-segment professional development for institutional research staff on how to efficiently and rigorously collect data related to online education.
- ✔ **Employ User-Centered Design:** Create a user-centered design process for collecting and sharing data to tailor data format and presentation based on the audience.

What Are the Expected Effects of Bridging This Gap?

- Enhanced institutional capacity due to:
 - Institutional research offices having adequate capacity so that they can rigorously and efficiently collect the necessary data.
 - Ongoing and updated professional development, so that staff can be appropriately trained on the latest tools, methods, and privacy protections.
- Consistent data collection for all course modalities so that campuses can make informed decisions about course offerings and resource allocation (i.e., in-demand course systems).
- Common learning outcomes that exist across courses, degree programs, and modalities to ensure a consistent student experience.
- Uniform metrics for data collection and reporting that are developed and agreed upon across institutional, system, and statewide levels, to aid in data collection, analysis, reporting, and use. This includes leveraging the Cradle-to-Career Data System to enable public access to information.



How Do These Effects Propel California to the Optimal Future State?

- All campuses consistently and rigorously collect, analyze, publish, and use data for decision-making on online education.
- Campuses use qualitative and quantitative data to help understand:
 - Efficacy of different modalities on learning outcomes;
 - Current and future student populations and their different needs;
 - Student experience in online classrooms and campus services; and
 - Current equity gaps and possible solutions.
- Campuses regularly exchange information and share successful practices via state-supported intersegmental meetings.



Organizational

Institutional structures that impact progress

What Is the Current State?

Institutional structures discourage peer sharing and collaboration in online education, particularly regarding curriculum, accreditation, systems, and finance.



What Is the Optimal Future State?

Institutional structures center students in online education and leverage online modalities to improve higher education's ability to address different student needs.

Why Is There a Gap between the Optimal and Current States?

- Competition for students, and for enrollment within and between campuses, discourages collaboration (e.g., community colleges offering baccalaureate degrees have an effect on CSU's and UC's enrollment).
- Fears about:
 - Job loss; or
 - Diminishing roles and function, including concerns about the potential influence of online instructional designers or administrators dictating academic design or that online education could weaken regional workforce connections and institutional regional specialities.
- Outdated education structures and systems that stifle innovation and the ability to adapt to changing workforce demands and student needs (e.g., in-person course offerings that are based on administrative judgment rather than data from demand planning systems).
- Administrative burden that affects students trying to enroll in online courses at different campuses and staff trying to reconcile student records.
- Requirements for certain students to take courses in person (e.g., those on F-1 Visas and those under the new UC requirement).



HOW CAN CALIFORNIA INSTITUTIONS BRIDGE THE GAP?

- ☑ **Strengthen Coordination and Collaboration:** Leverage the state's diverse multi segment system to minimize duplicative efforts, pool resources, and streamline operations. Consider the following:
 - **Revise Incentives:** Align incentives to encourage collaboration without jeopardizing job security or academic freedom.
 - **Promote Innovation:** Provide one-time funds for innovative, collaborative projects that are jointly managed by administration and faculty, with reporting to systemwide offices, the governor's office, and legislature.
 - **Leverage Existing Tools:** Utilize the Cradle-to-Career Data System collaboration efforts to facilitate intersegmental conversations.
 - **Use Data to Increase Understanding:** Collect data from faculty, administrators, and staff to identify barriers, incentives, and penalties that drive change.

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Continuation of *How Can California Institutions Bridge the Gap?*

- **Streamline Processes:** Create model courses and administrative processes based on input from faculty and administrators to reduce redundancy and burden.
- **Facilitate Intersegmental Discipline-Specific Meetings:** Organize annual discipline-specific meetings across segments to discuss and align curriculum, improve pathways, and address barriers.
- **Amplify Value of Collaboration:** Conduct, support, and amplify research among leadership and faculty on the economic value of collaboration within and between segments.
- ☑ **Engage State Oversight:** Ensure that someone in the governor’s office is responsible for overseeing online education efforts.
- ☑ **Improve System Responsiveness:** Invest in systems that enable institutions to effectively match schedules with student demand.



What Are the Expected Effects of Bridging This Gap?

- Students are able to enroll in courses at multiple institutions simultaneously, online courses transfer seamlessly between institutions and segments, and there is agreement about which courses meet general education and major requirements.
- A statewide course management system reduces administrative burden on campuses and provides students a clear picture of their academic progress.
- State level review and approval of online programs ensures all standards are consistently applied and courses across all modalities are evaluated using a common framework.
- Allies and champions in positions of power (within the state and also at the campus and segmental levels) create cross-sector policies and processes that encourage knowledge sharing, collaboration, and efficient use of resources.



How Do These Effects Propel California to the Optimal Future State?

- Students leverage online education to meet learning objectives and achieve education goals by moving seamlessly across campuses and segments, and enrolling in multiple campuses simultaneously.
- Flexible rules and structures allow for innovation and iteration in online education.
- Faculty and staff are trained in and empowered to use a variety of course designs, pedagogies, and technology to successfully meet student needs and achieve learning outcomes.
- Efficient, pragmatic, and responsive administrations value online education as a student success strategy.
- Administrative support for online courses and degree programs within segments handles issues, such as accreditation.



Finance

How online education is funded and what it costs

What Is the Current State?

Stakeholders do not understand or agree upon financial aspects of online education, particularly how it is funded and what it costs to develop online courses, degree programs, and student support services.



What Is the Optimal Future State?

The state, higher education segments, and individual institutions fund online education equitably, adequately, and transparently, focusing on faculty and staff professional development and technologies that enhance student learning.

Why Is There a Gap between the Optimal and Current States?

- Competition for resources with historically funded in-person formats.
- Confusion about:
 - The cost of educating students, as some stakeholders perceive online education can be provided at a lower cost than in-person education or the growth of online education may prompt funding cuts and job loss;
 - Different funding models, as there is a lack of understanding about segments' models for online versus in-person courses and programs, compounded by confusion when students enroll in multiple online courses;
 - Compensation and hiring practices, as there are concerns that added faculty workload in online teaching may not be compensated and that an expansion in online learning may further incentivize institutions to utilize adjunct faculty instead of hiring full-time faculty; and
 - The value of online education, as some faculty do not see online education as a valuable modality for improving enrollment and student success outcomes.
- Financial concerns about revenue loss from auxiliary services and self-supporting enterprises (e.g., parking and dining) due to reduced on-campus attendance.
- Lack of funding for innovation and exploration of emerging technologies and lack of parity for innovation across segments.
- Apprehension over disparities in access to the internet and technology that lead to students not having resources to complete online courses.
- Differing views about the value and use of open online resources and their role in both online education and in-person courses.



HOW CAN CALIFORNIA INSTITUTIONS BRIDGE THE GAP?

- ☑ **Assess Costs and Impact:** Identify the cost of developing and delivering high-quality online courses, programs, services, and assessment options. This will allow for a better understanding of the overall impact of shifting to online learning on the system, campus, and department level.
- ☑ **Eliminate Funding Barriers:** Remove obstacles that hinder the development and sustainability of quality online education that delivers equitable results. Consider the following:

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Continuation of *How Can California Institutions Bridge the Gap?*

- **Provide transparent funding models** and information to dispel myths about the cost of online courses and support services.
- **Offer financial incentives** for faculty partnerships to develop online courses within and across institutions.
- **Address union concerns** and ensure that faculty contracts are explicit about expectations regarding modality of instruction.
- **Define faculty workload metrics** for online courses, and adequately fund professional and course development based on metrics.
- **Pool resources** to create regional facilities to create and collaborate on online courses and instructional videos (e.g., teaching students how to create a résumé).
- **Implement straightforward, shared campus revenue streams** for enrollments in online courses outside of a student's home campus.
- **Establish segment-wide (and statewide, as relevant) remote student support services** to ensure equitable access to online resources.
- ☑ **Analyze Faculty Workloads:** Collect data on instructor workloads, including course modality.
- ☑ **Allocate Funding for Infrastructure:** Dedicate funding for infrastructure to support online education, similar to funding allocated for physical capital projects.



What Are the Expected Effects of Bridging This Gap?

- Clarity on the cost of developing and delivering quality online education, leading to better policy- and decision-making.
- Higher education finance system that provides adequate funding for technology, curricular design, and support staff, along with state funding mechanisms that fairly compensate colleges for students enrolled in online courses at other campuses.
- Cross-campus coordination so online courses can scale by segment and regional facilities can be leveraged to produce online content for courses and student services.
- Decreased reliance on physical infrastructure (lessening the need for new capital projects and allowing spaces to be repurposed for housing or other community needs).
- The negotiation of favorable software contracts, creation of proprietary systems, and purchase of instructional equipment related to online education across segments.



How Do These Effects Propel California to the Optimal Future State?

- Skilled faculty are compensated and provided release time to develop online course materials and train their peers.
- Segments continuously and actively explore ways to diversify revenue streams and innovate.
- Campus and program innovations are not viewed as a threat to others.
- Policymakers value and provide fiscal support for online education through:
 - Equitable compensation for teaching online and in-person;
 - Campus funding for infrastructure and capital outlay that includes support for online teaching and learning; and
 - Funding mechanisms that align with learning outcomes and students' demonstration of competency.



Culture and Value

Social and customary beliefs in higher education

What Is the Current State?

Higher education's deep-rooted traditions and practices hinder institutional ability to adapt to evolving needs. Competitive culture impedes the collaboration and trust necessary to advance change.



What Is the Optimal Future State?

Institutions highly value a culture of collaborative exploration and innovation, generating trust among stakeholders and widespread appreciation for the flexibility and possibilities that online education can bring with appropriate investment.

Why Is There a Gap between the Optimal and Current States?

- Faculty and staff who provide or support online education state that their work is not valued, championed, or compensated adequately because of the perception that online teaching is less important than in-person teaching and requires less effort.
- Tenure and advancement systems tend to be agnostic to teaching modality but also disincentivize risk-taking, which unintentionally encourages faculty to take a safe route with teaching and stick to traditional pedagogical techniques.
- Adjunct faculty may be more open to innovation but often lack the political capital to enact change.
- Higher education's culture has traditionally valued selectivity (which inherently means restricting access), which is counter to the increased access that is one of online education's main benefits.



HOW CAN CALIFORNIA INSTITUTIONS BRIDGE THE GAP?

- ☑ **Communicate Online Education's Value:** Increase understanding of online education's strengths for the individual and for departments and institutions (via enhanced accessibility, flexibility, and capacity), and enable perceptions of online learning as programs that add to rather than take away from in-person teaching and learning:
 - **Engage all stakeholders** by offering leadership training on the value of and demand for online learning for non instructional staff and administrators.
 - **Build faculty buy-in** for online teaching by spotlighting how prestigious and innovative institutions have achieved positive outcomes for online students.
 - **Encourage online teaching and learning** by providing incentives and rewards via the tenure and promotion processes.
 - **Elevate online education as an important tool for inclusivity** by acknowledging that this modality can meet the needs of students who have been marginalized through traditional, place-based higher education (e.g., students who have low incomes, disabilities, neurodiverse conditions, employment commitments, or caregiving responsibilities).
 - **Amplify benefits** of online teaching and learning, such as reduction of travel time, decreased need to navigate on-campus space issues, and elimination of on- or near-campus living.

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Continuation of How Can California Institutions Bridge the Gap?

- **Hire Visionaries:** Recruit and hire institutional leaders and faculty who have a vision for how online education is part of an evolving and agile system of education that centers quality and equitable outcomes.
- ☑ **Ensure Equity:** Establish tenure and promotion policies that treat online and in-person courses and programs equitably, and support continuous improvement of teaching in all modalities.
- ☑ **Honor Unique Campus Contexts:** Acknowledge that culture and trust look different for each segment and that each campus may require different solutions.



What Are the Expected Effects of Bridging This Gap?

- Faculty engaged in online teaching feel valued, supported, and incentivized to create and adopt innovative practices that improve the student experience and learning outcomes, while exposure to peer approaches broadens their teaching perspectives.
- Widespread support for faculty and staff engagement in online education and professional development programs that lead to capacity building.
- Colleges develop and use diverse learning strategies to address all student needs.
- Colleges deploy humanized online teaching that allows students to connect with each other and encourages student-faculty interactions anchored in trust and empathy.
- Enhanced understanding of how online education can be part of an equitable and inclusive enrollment and retention strategy that leads to greater support.



How Do These Effects Propel California to the Optimal Future State?

- Trust grows among the segments, administrators, faculty, and students, fostering the view that online education can be a valuable modality and part of a robust and inclusive learning environment.
- Students and faculty feel valued in all course modalities in which they teach or study.
- Deep connections and learning occur in all classrooms, across all course modalities.
- Administrators, faculty, and staff focus on supporting students throughout their chosen educational path.
- An integrated higher education system that supports student and employee needs is developed.

Appendices

Appendix A. Methods

Research Process

Given the deep and complex nature of these questions, we leveraged semi structured interviews, focus groups, and workgroup convenings and supported our findings by an extensive literature review. We launched the work by conducting three interviews with higher education faculty and administrators who received state awards for innovative work in online science and engineering education. Next, we convened a workgroup of 13 individuals leading innovative practices in online education across California's three public higher education segments (see Appendix B). From the initial interviews and workgroup discussions and insights, we identified five main categories of concerns, outlined in the previous sections. We then conducted in-depth interviews with 14 additional stakeholders (see Appendix C). We also held a second convening of the workgroup to help us refine the roadmap.

A Note on Perspective

This roadmap was developed based on the input and feedback from faculty and administrators from the CCC, CSU, and UC segments. Thus, it heavily reflects the concerns of faculty and campus leaders. We are notably missing the perspective of former, current, and prospective students and do not fully address the role and responsibilities of students in creating a thriving and agile online educational environment. We also have yet to interview other key players in the field, such as policymakers, employers, and other research organizations. However, we believe that starting with a focus on faculty, staff, and administrators on the campus and segmental levels, who seem to constitute the largest source of skepticism of online instruction, is the best way to understand changes that need to be made at the institutional and segmental levels.

In addition, this research work is centered on understanding stakeholder concerns about online education and does not address other issues that are

related to virtual learning more broadly. There is a body of developing research that explores the expansion of online education and its relationship to enrollment.¹³ Developing research also explores online education's relationship to student retention and student graduation rates.¹⁴ We address these issues as they relate to attitudes toward online education but do not synthesize the current research on this topic, as it is outside the scope of our current study.

Appendix B. Workgroup Members

Below are the members of the workgroup who engaged in ongoing, collaborative discussions to share insights for this publication.

- **Robert Keith Collins**, Associate Professor, San Francisco State University
- **Vincent J. Del Casino, Jr.**, Provost and Senior Vice President of Academic Affairs, San José State University
- **Godfrey Gibbison**, Dean of Extended Learning and Global Programs, CSU San Marcos
- **Jill Leafstedt**, Dean of Extended University and Digital Learning, CSU Channel Islands
- **Ellen Osmundson**, Program Director of UC Online, UC Office of the President
- **Michelle Pacansky-Brock**, Professional Development Coordinator, Foothill College
- **Lark Park**, UC Regent and Director of the California Education Learning Lab, California Governor's Office of Planning and Research
- **Lené Whitley-Putz**, Dean of Online Learning, Foothill College
- **Ji Son**, Professor, Cal State LA
- **Erin Steinberger**, Professor, Santa Monica College
- **Fabiola Torres**, Professor, Glendale Community College
- **Julie Uranis**, Senior Vice President for Online and Strategic Initiatives, University Professional and Continuing Education Association
- **James Zimmerman**, Associate Vice Provost for Teaching and Learning, UC Merced

Appendix C. Interview Participants

In addition to the discussions held with the workgroup members listed in Appendix B, this work was further enriched through interviews conducted with the following anonymized list of participants.

Segment	Title
CCC	Professor
CCC	Professor
CCC	Professor
CCC	Online Faculty Coordinator
CCC	Faculty Director, Online Education
CCC	Dean, Academic Affairs
CCC	Executive Director
CCC	Vice Chancellor
CSU	Senior Director, Center for Teaching and Learning
CSU	Director, Teaching and Learning
CSU	Professor, Trustee
UC	Professor
UC	Associate Vice Provost
UC	Vice Chancellor

Notes

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Staff

- **Su Jin Jez, PhD**, CEO
- **Kim Bernet**, VP, Operations and Finance
- **Laura Bernhard, PhD**, Senior Researcher
- **Carolyn Ho**, Communications Director
- **Na Ho**, Operations Coordinator
- **Anna Johnson**, Policy Director
- **David Radwin**, Senior Researcher