Marginalizing the Majority: Barriers to California Baccalaureate Attainment

by

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ABSTRACT

California is home to the nation's largest higher education systems which once served as *the model* for access, affordability, and excellence. However, decades of declining state investment and existing policies are *marginalizing the majority* of California students and perpetuating social stratification across the state. Without policy transformation, California will fail to meet demands for a more highly educated workforce. Higher education CEOs hold a unique vantage point in which they bridge and buffer micro, meso, and macro forces, and are positioned to provide nuanced insight into higher education's complex ecosystem. This qualitative grounded theory study evaluated how California public higher education CEOs (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) understand and navigate the challenges of increasing undergraduate access and attainment. Saturation of data reveals three broad themes - systemic barriers, institutional practices, and societal determinants - each with several subthemes. From business operations to curricular decisions, findings reveal a tension and inverse relationship amongst two continuums: uniformity and autonomy. Recent legislative reforms and higher education budget performance expectations propagate increasing intra and intersegmental uniformity, addressing participant concerns over disparate and circuitous pathways. However, participants caution against one-size-fits-all legislative approaches as each campus serves unique regional industry and student needs. Therefore, regional needs should moderate identification of the "sweet spot," the point at which autonomy and uniformity continuums converge. California public higher education CEOs must balance the autonomy and uniformity continuums as they attempt to move their respective campus mission and strategic goals forward.

DEDICATION

This research is dedicated to all former, current, and future California community college and university students.

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CHAPTER 1: INTRODUCTION

Chapter 1 Overview

Chapter 1 reviews U.S. higher education statistics, with a nuanced focus on California. A brief overview of the 1960 California Master Plan for Higher Education (CMPHE) is included. Further, social and economic impacts of a college-educated workforce are documented. Lastly, projected labor market gaps that California higher education system constraints produce are reviewed and serve as justification for this empirical study.

Overview of the Problem

Aside from India, the United States is home to more higher education institutions than any other country and spends more per student than all but one (Luxembourg) of the 35 countries that comprise the Organization for Economic Cooperation and Development (OECD, 2019). In 2020, the United States ranked seventh in postsecondary degree attainment for adults (ages 25 to 64) among the 35 OECD countries. While U.S. adult postsecondary degree attainment increased from 36% to 51% between 2000 to 2020, 21 other countries (i.e., Luxembourg, Ireland, Korea, Great Britain, Australia, Poland, Switzerland, Slovenia, Canada, Latvia, Portugal, Netherlands, Japan, France, Spain, Slovak Republic, Belgium, Finland, Greece, Sweden, and Czech Republic) saw larger gains over the same time frame (Irwin et al., 2021; OECD, n.d.). In 1980, the United States was a leader in baccalaureate degree attainment, only second to Canada, but 35 years later had fallen to the middle of the OECD (n.d.) pack.

Higher Education in California

Enacted in 1960, the CMPHE purposefully devised a three-tiered system, in which each segment held different mission statements serves different student populations, and included four overarching goals: universal access, affordability, equity, and quality (California Department of Education, 1960). The nine undergraduate campuses of the University of California (UC)

emphasize research, accepting only the top 12.5% of high school graduates (California Department of Education, 1960). The 23-campus California State University (CSU) emphasizes teaching, accepting the top 33.3% of local high school graduates (California Department of Education, 1960). Lastly, California Community Colleges (CCC) were designed to provide open access to *all* students, even those without a high school diploma (California Department of Education, 1960). Due to shifts in labor market demands, the California population, and various inefficiencies across the three-tiered system, the CMPHE is not meeting current demand for baccalaureate access and degree completion. And while California is home to the nation's largest public higher education systems, California is second to last in providing access to baccalaureate-level education, with only 28% of California undergraduate students enrolled at a 4-year university (see Figure 1; Campaign for College Opportunity, 2021; National Center for Education Statistics [NCES], n.d.-b).

California Labor Market Demands

Even though California is home to the nation's largest education systems, the Public Policy Institute of California (PPIC) predicts that there will be a 1.1 million shortage of baccalaureate degree holders in California to meet job demands of 2030 (Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et. al, 2015), with 40% of new jobs requiring baccalaureate degrees (H. Johnson et al., 2019). Improvements in high school graduation rates, college and university enrollment, and baccalaureate degree completion are necessary to address the 1.1 million shortfall. As high school graduation rates continually increase across the state, so does the number of students who meet the CSU and/or UC eligibility requirements (Silver et al., 2017).

Figure 1 – Share of public undergraduate enrollment in the 4-year and 2-year sectors by state, fall 2020

	Four-year	Two-year
Alaska	100%	0
Puerto Rico	96%	4%
Nevada	93%	7%
Colorado	89%	11%
South Dakota	82%	18%
Utah	80%	20%
Florida	78%	22%
North Dakota	77%	23%
Montana	76%	24%
Washington	74%	26%
West Virginia	73%	27%
Idaho	69%	31%
Vermont	69%	31%
Ohio	66%	34%
Georgia	64%	36%
Texas	63%	37%
Louisiana	60%	40%
Delaware	59%	41%
Pennsylvania	59%	41%
Indiana	59%	41%
Arkansas	58%	42%
Maine	58%	42%
Alabama	58%	42%
Rhode Island	56%	44%
South Carolina	56%	44%
Oklahoma	55%	45%
Wisconsin	54%	46%
Michigan	54%	46%
Missouri	54%	46%
Maryland	53%	47%
New Hampshire	51%	49%
Kentucky	51%	49%
Massachusetts	50%	50%
New York	50%	50%
Wyoming	50%	50%
Nebraska	49%	51%
Tennessee	48%	52%
Connecticut	48%	52%
Virginia	47%	53%
New Jersey	47%	53%
Minnesota	44%	56%
Mississippi	42%	58%
Kansas	42%	58%
Oregon	41%	59%
North Carolina	41%	59%
Arizona	40%	60%
Hawaii	37%	63%
New Mexico	34%	66%
Iowa	34%	66%
California	28%	72%
Illinois	23%	77%

Note. Only 28% of California undergraduates are enrolled in a 4-year university. California ranks near the bottom on 4-year university enrollment. From *Shut Out: The Need to Increase Access to the University of California and California State University*, 2021, p. 40. Campaign for College Opportunity (https://collegecampaign.org/portfolio/shut-need-increase-access-uc-csu/).

And as the percentage of CSU- and UC-eligible high school graduates continues to increase, more academically prepared students are forced to enroll in CCCs due to insufficient space at UC and CSU. The increasing demand for California public university access is not just for first-term freshman (FTF), but also transfer-intending students, as recent CCC initiatives have increased the number of transfer eligible students (e.g., CCC Vision for Success, Guided Pathways, CA Assembly Bill 705). The increasing number of CSU- and UC-eligible students is promising to meet California labor market needs; however, universities have not been able to keep up with demand, denying admission more than 20,000 *eligible* freshmen and 10,000 *eligible* transfer applicants each year (Gao & Johnson, 2017; Jackson et al., 2017; H. Johnson & Mejia, 2020).

Since the California Department of Finance projected that the number of high school graduates will not significantly change through the year 2030, PPIC suggested a three-pronged approach to increase baccalaureate completion in the state of California: (a) increase the number of high school graduates entering college, (b) increase persistence and completion rates of students already enrolled in college, and (c) increase the number of CCC transfer students (H. Johnson, 2016). Increasing persistence and completion rates at both community colleges and public universities invariably increases access by creating room for new eligible students to enroll.

Social and Economic Impact of Higher Education

California's economy is the largest in the United States, and fifth largest in the world, with a gross state domestic product exceeding $3 trillion (Forbes, 2019). Even so, California residents suffer vast income disparities. Despite the presence of powerful economic sectors (e.g., technology in the Silicon Valley, film industry in Hollywood), four in 10 Californians are at or

near the poverty level, with Hispanics earning the lowest median household income (H. Johnson

et al., 2015). Postsecondary vocational certificates and degrees are a means of decreasing

California poverty levels; as educational levels rise, wages increase, and unemployment rates

decrease (refer to Figure 2).

Figure 2 – Unemployment rates and median weekly earnings by educational attainment, 2021
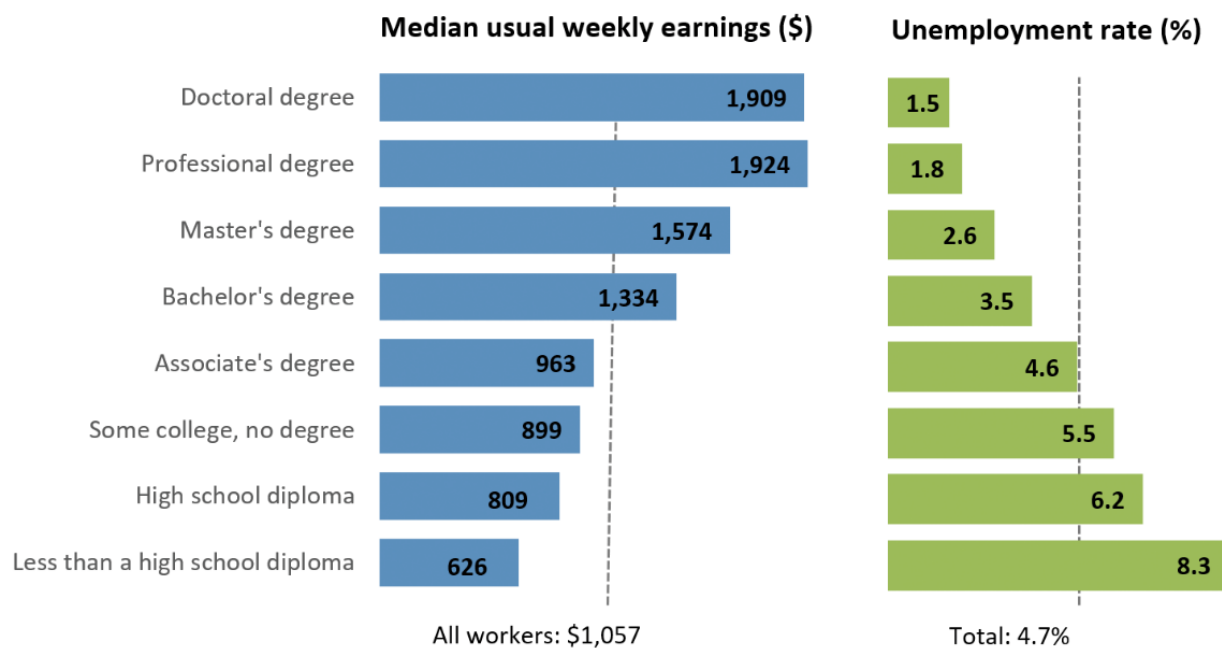
Note. Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey 2019. From "Earnings and
unemployment rates by educational attainment, 2021," Employment Projections, U.S. Bureau of
Labor Statistics, 2021 (https://www.bls.gov/emp/chart-unemployment-earnings-education.htm).

Higher education is an investment in California's future, both systemically and for

individual upward economic mobility (Card, 1999; Hanushek & Woessmann, 2008). Increasing

the number of California college graduates not only benefits the degree holders, but regional and

state economies (Bustillos et al., 2017; Gao & Johnson, 2017) as the demand for social services

decreases (Haas et al., 2013) and tax revenues increase. More college graduates result in higher

incomes (U.S. Census Bureau, 2020, greater economic mobility, more tax revenue, and less

demand for social services (Haas et al., 2013). Further, as education levels rise, so too does

public safety (Groot & Van Den Brink, 2007; Hjalmarsson, & Lochner, 2012; Lochner, 2020)

and health (Cutler & Lleras-Muney, 2006; Lleras-Muney, 2005; Ross & Wu, 1995). Research

has found "that people who have gone to college are more tolerant, are better citizens, and are

more engaged. They know more about the world. They are even happier" (Haas et al., 2013). As

Figure 3 shows, as a person's level of education increases, the number of years spent in poverty,

unemployed, on cash aid, or in prison decreases substantially (Haas et al., 2013).

Figure 3 – Personal and public gains of higher education
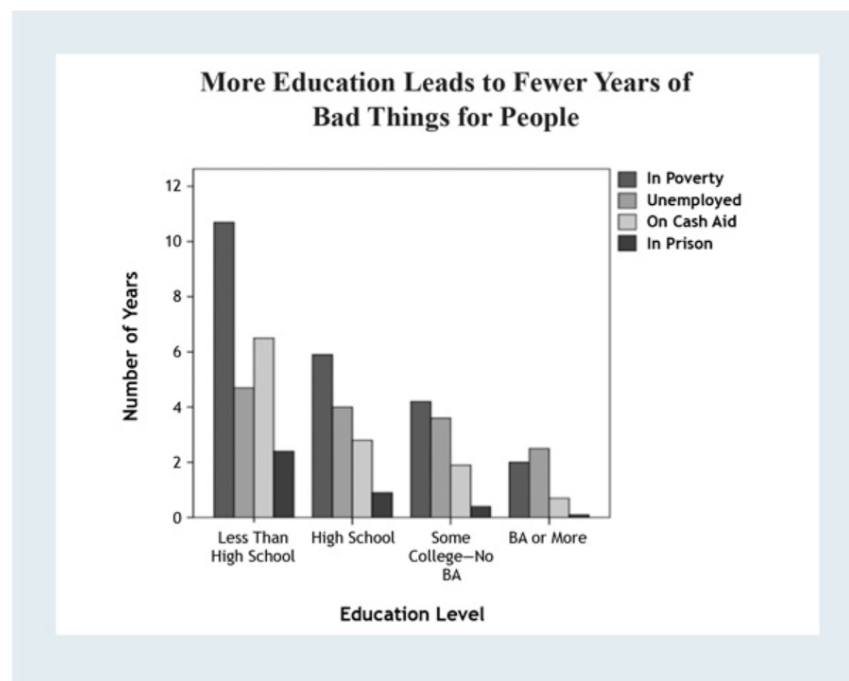
Note. From *The Benefit of Public Investment in Higher Education: California and Beyond,* by R. D. Haas, R. J. Birgeneau, M. S. Coleman, & H. E. Brady, 2013. American Academy of Arts & Sciences.

For every dollar the state invests in higher education, it gets $4.80 back for college

completers (Reddy & Dow, 2021; Stiles et al., 2012). An economic modeling study published by

Emsi Burning Glass in January 2022 found that CCC "students gain $5 in earnings, and

taxpayers see a net benefit of $2 in added tax revenue stemming from students' higher lifetime

earnings and increased output by businesses" (California Community Colleges Chancellor's

Office [CCCCO], 2022, para. 3). Further, CCC associate degree earners' annual income increases by $11,000 compared to their high school graduate counterparts (CCCCO, 2022). In 2018-2019, every dollar invested in CSU yielded $6.98 of California industry activity, a ratio that rises to $29.90 when CSU alumni increased earnings are accounted for (CSU, 2021). An economic impact analysis for UC during the same year indicated that every dollar of state funding "helps generate $21.04 in economic output, $9.65 in labor income, $14.32 in value added, and $3.01 in total tax revenue ($1.09 in state and local tax revenue). Additionally, every $7,371 in State funding supports one job" (UC, 2021, p. 6). Further, UC baccalaureate degree graduates on average earn $9,300 more annually then their non-UC graduate counterparts (UC, 2021). This is evidence that all three public higher education segments serve as both private and public goods benefiting both individual students and the broader community.

PPIC projects that by 2030, two thirds of California jobs will require some type of college credential (H. Johnson et al., 2019). However, only 47% of Black Californians, 27% of Latinx Californians, and 34% of American Indian/Alaskan Native Californians hold a degree or "high-value credential" (Reddy & Dow, 2021, p. 6). Research finds that having 60% college attainment for *all* ethnic groups would reduce California Medicaid costs by $2.7 billion and criminal justice expenses by nearly $1 billion by 2030 (refer to Figure 4; Reddy & Dow, 2021). Furthermore, even after accounting for increased cost of higher education expenses required to raise degree and credential attainment, the state would still come out ahead by 2028 with additional revenue exceeding costs (Reddy & Dow, 2021). Reddy and Dow (2021) supplied a roadmap with eight metrics that need to be improved upon to meet the goal of 60% college degree and "high-value credential" attainment for all California students (refer to Figure 5).

Figure 4 – Fiscal impact of raising California college attainment to 60% across all racial/ethnic groups

Ensuring that 60 percent of Californians hold a degree or high-value credential across racial/ethnic subgroups will yield billions to the state in the form of additional tax revenues and cost savings.
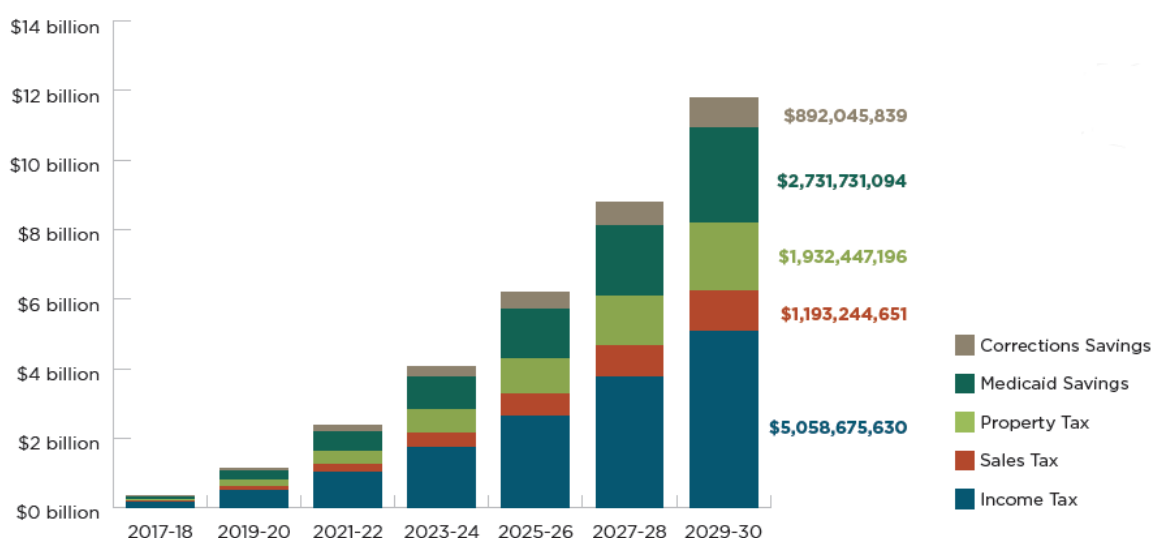
Note. From *California's Biggest Return: Raising College Attainment to 60 Percent for all by 2030 Will Generate $133 Billion in Additional Federal and State Revenue. A Road Map for Wow Our State Can Reap the High Rewards of Improving College Attainment for all Racial/Ethnic Groups*, by V. Reddy & A. Dow, 2021, Campaign for College Opportunity.

Improvements in high school graduation, college enrollment, and college completion are necessary to meet labor market demands for college degree holders (Reddy & Dow, 2021). Since CCCs enroll 72% (Campaign for College Opportunity, 2021; National Center for Education Statistics [NCES], n.d.-b). of California public higher education students and serve as the primary access point for low-income, first-generation, and other historically underrepresented students, ensuring seamless transfer pathways for CCC students is key in increasing California student baccalaureate degree attainment (H. Johnson & Mejia, 2020). Presently, UC and CSU capacity constraints paired with highly complex transfer application and admission processes marginalize the majority of California college-intending students. Reducing systemic and institutional barriers of transfer pathways in California can increase economic and social

mobility opportunities for historically marginalized students, who would otherwise be unable to

obtain a baccalaureate degree if not for the low-cost open access that CCCs provide. More

college graduates translate into higher incomes, greater economic mobility, more state and

federal tax revenue, and less demand for tax-funded social services.

Figure 5 – Metrics that need to improve to reach 60% California college degree attainment by 2030 for all racial/ethnic groups

	2016 Baseline	2030 Goals	Net Impact on Credential Attainment
High School Graduation Rate	82.7%	90.4%	
Percent Enrolling Directly out of High School	63.2%	74.8%	
1st time enrollment, 20-44 YO	3.9%	4.8%	**Additional credentials:** 2,510,560
Transfer Students per Year	88,080	154,140	Additional state revenues: $63.0 billion
Credentials Awarded per 100 full-time equivalent (FTE) students at Public Two-Year Colleges	29.8	41.8	Additional federal revenues: $64.5 billion
Credentials Awarded per 100 FTE Students at the University of California	25.6	28.6	Additional cost to state: $79.1 billion
Credentials Awarded per 100 FTE Students at the California State University	27.0	31.6	
Credentials Awarded per 100 FTE Students at Independent Colleges and Universities	35.7	46.4	

Note. The measure used here, Credentials per 100 full-time equivalent students (FTES), allows us to consider that the state's public colleges and universities enroll both full-time and part-time students. FTES is a way to aggregate part-time students into full-time students. State funding and college budgets are based on FTES. From *California's Biggest Return: Raising College Attainment to 60 Percent for all by 2030 Will Generate $133 Billion in Additional Federal and State Revenue. A Road Map for Wow Our State Can Reap the High Rewards of Improving College Attainment for all Racial/Ethnic Groups*, by V. Reddy & A. Dow, 2021, Campaign for College Opportunity.

In theory, community colleges and the transfer function are more cost effective for

students and the state (H. Johnson & Mejia, 2020; R. M. Romano & Palmer, 2016); however, in

practice, the longer it takes a CCC student to transfer, the more it costs everyone. Students who

start at a CCC may pay $36,000–$38,000 more for a baccalaureate degree compared to students

who enroll directly at a 4-year institution after high school (Bustillos et al., 2017). Furthermore, students who graduate more quickly will have the ability to contribute more to the economy (via taxes) sooner. Bustillos et al. (2017) found that "a student graduating in six years will invest $58,000 more than would a student graduating in four years and earn nearly $53,000 less over his or her lifetime" (p. 21).

Significance

While the intent of the CMPHE was to increase baccalaureate access to a broader spectrum of students, the three-tiered, stratified system cannot meet the demands of college students, and further perpetuates social stratification as systemwide inequities and roadblocks further marginalize the majority. The demand for a more highly educated workforce has increased significantly since 1960 when the CMPHE was first implemented; yet in 60 years no changes in the percentages of enrollment rationing for the UC and CSU have occurred (Jackson et al., 2019). After examining National Educational Longitudinal Study data from the 1970s, 1980s, and 1990s, the National Bureau of Economic Researchers (2019) found that institutional factors, such as enrollment rationing and selectivity, have a larger impact on baccalaureate attainment even after controlling for student characteristics like academic preparation (Geiser & Atkinson, 2012). Newfield (2016) also suggested that university selectivity is a better predictor of graduation rates than student's college preparatory coursework in K-12. Newfield also postulated that the decline of public higher education funding is directly correlated to the stagnation of U.S. college degree attainment.

While employers demand more highly skilled, college-educated employees, over the last 5 decades California has invested less per student (adjusted for inflation) at its public universities and community colleges, falling from 18% of the state budget in 1976-77 to 11% in 2018-19

(Cook et al., 2019). Allen (2011) observed that "problems, policies, and politics often converge in times of crisis and economic hardships" (p. 125). Complexity theory identifies that lean budgets require systems to emphasize efficiency at the expense of other dominant and driving values (Shoup & Studer, 2010). Ellerbe (2019) agreed, stating, "Given the national priority to improve accountability for completions in a somber funding environment, efficiently using each monetary resource unit to produce the highest possible yield becomes an operational necessity" (p. 18). While California higher education budget allocations have continually declined, the three-tiered system stands to make gains in baccalaureate access and completion by increasing efficiency.

There is a strong interplay of systemic and institution site-level factors that either facilitate or inhibit students' progression toward baccalaureate degree attainment. Higher education institutions project their values and priorities via human and fiscal allocations, which are reflected in academic offerings (i.e., basic skills, vocational, or transferable courses, along with number of seats available by discipline), support services (e.g., mental health counseling, academic advising, basic needs, tutoring, etc.), and other nonacademic activities (e.g., athletics, Greek life, cultural affinity centers, residence life, etc.). While all California higher education institutions have formal, multilayer budget prioritization processes that include student, staff, and faculty voices, higher education CEOs have the final say. As higher education CEOs are responsible for leading their campus-specific missions, a comprehensive review of their attitudes towards macro, meso, and micro forces, as well as campus prioritization under their leadership, can provide insightful information for policymakers and legislators.

As Chapter 2 outlines, there are numerous empirical studies surrounding the college student experience, including the transition experience of transfer students. Further, empirical

research involving college and university presidents abounds but often takes the form of case studies or longitudinal studies that seek to document demographic trends, success stories, or lessons learned from failed presidencies (Nelson, 2009; Smerek, 2013; Trachtenberg et al., 2013). There is no established framework that identifies the structural, societal, and systemic factors that impede baccalaureate attainment and the role of college and university presidents within the larger framework. Serving the largest number of college students in the nation, California serves as fertile ground to explore these issues, especially since the CMPHE once served as *the model* for other states.

Higher education executive leaders by the nature of their job are enmeshed within the complex higher education ecosystem, which produces structural barriers. As such, the research sample of interest included public higher education executive leaders who could elaborate on the intricacies, complexities, and challenges leading a public higher education institution. Qualitative research with the target sample can inform future state higher education policy as well as institution site-level practices. The goal of this study was to collect and analyze the perceptions and practices of the California public higher education executive leaders as they relate to baccalaureate access, completion, and the transfer function. Further, this study sought to identify how executive leaders bridge and buffer their core technology to address macro (federal, state, system office), meso (regional industry, local city governance), and micro (institution and/or district) forces. Lastly, this study sought understanding of public higher education CEOs role within the broader higher education landscape.

Research Design, Methodology, and Questions

While a plethora of quantitative research studies examine students' higher education outcomes, quantitative research cannot capture the fluidity and complexity of social and political

environments or address institutional or systemic practices. Allen (2011) posited that "qualitative research is well suited to the political process and especially to the implementation process of public policy. It can contribute important insights into research that address the complexity and incremental nature of the political process" (p. 44). Due to the convoluted ecosystem of California public higher education, qualitative research was identified as the appropriate avenue for capturing professional insights from executive leaders presently leading their organizations amidst said complexities. Semistructured interviews that utilized several broad open-ended questions allowed research participants to share their perceptions and lived experiences as a California community college or university CEO (Creswell & Creswell, 2017; Strauss & Corbin, 1990).

To move beyond simplistic descriptions of a few public higher education CEOs' lived experiences, this study sought saturation (Corbin & Strauss, 2015; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020) of themes to develop a public higher education administration framework. Therefore, this qualitative study followed the interpretive grounded theory approach outlined by Corbin and Strauss (2015) to guide the collecting and coding of interview data to identify emerging categories and generate a relevant model or theory. This grounded theory approach allows research participants to shape the development of a framework as saturation is achieved through iterative data collection and analysis (Corbin & Strauss, 2015; Creswell & Poth, 2018; Strauss & Corbin, 1990). Creswell (2013) posited that "the overall tone of a grounded theory study is one of rigor and scientific credibility" (p. 123). Grounded theory is particularly useful in assessing processes, such as the complexities found in baccalaureate pathways available to California students.

To ensure analysis was driven by data collected rather than any preconceived notions, the researcher employed an inductive approach, common with traditional grounded theory frameworks (Corbin & Strauss, 2015; Creswell, 2013; Strauss & Corbin, 1990; Tracy, 2020). An inductive approach to data analysis means that the researcher does not begin with a predetermined set of codes, instead data are coded into categories that emerge naturally. The grounded theory approach is an iterative process, where data collection, analysis, and interpretation are interconnected and the researcher employs a constant comparative approach until saturation (no additional insight) is achieved (Corbin & Strauss, 2015; Creswell, 2013; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020). Grounded theory is also abductive as the researcher must examine all possible theories as they relate to findings. In grounded theory studies, the "researcher engages in the process of moving analytic circles rather than using a fixed linear approach" (Creswell, 2013, p. 182). For this grounded theory study, the researcher engaged in inductive analysis by first developing several broad categories (open coding) before identifying a central theme (axial coding) and attempting to interconnect the themes (selective coding) to develop a relevant model or theory (Corbin & Strauss, 2015; Creswell, 2013; Strauss & Corbin, 1990).

By the very nature of their work, California public higher education executive leaders are enmeshed within the convoluted higher education ecosystem. Given the projected shortfall of baccalaureate degree holders in the state of California, this study examined public higher education leaders' perceptions surrounding California student access to baccalaureate-level education as well as factors that may inhibit baccalaureate completion. This study also sought to examine how California public higher education executive leaders utilize their institutional core technology to bridge and buffer various macro (federal, state, system office), meso (regional

industry, local city governance), and micro (institution and/or district) forces. This resulted in four guiding research questions.

Research Questions

1. How do California higher education leaders perceive the current climate of baccalaureate access and completion, and what are their suggestions for making improvements?

2. How do California higher education leaders perceive the current climate of transfer, and what are their suggestions for improving baccalaureate access to CCC transfer students?

3. How do California higher education leaders from each segment (UC, CSU, and CCC) hold similar/dissimilar perceptions regarding the current climate of baccalaureate access and completion, or the role that transfer plays?

4. How do California higher education leaders prioritize multiple and competing initiatives from various stakeholders (e.g., federal, state, UC Office of the President, CSU/CCC Chancellor's Office)?

The researcher conducted a qualitative grounded theory study of California public higher education leaders to reveal leadership practices and perceptions surrounding California student access to baccalaureate-level education. The purpose of this study was to develop a framework of public higher education administration. Study findings were *grounded* in the complex realities described by research participants.

Participants

The participant sample of interest was California public college and university CEOs with representation across all three segments (i.e., UC, CSU, CCC). The researcher engaged in purposeful participant selection, sending email invitations to most CCC presidents, all 23 CSU presidents, and all nine undergraduate UC campus chancellors. While there are presently 116

CCCs, after removal of Cal Bright (the fully online CCC that only provides noncredit courses and certificates), the CCC where the researcher works (to reduce researcher bias), presidents who were serving in interim or acting roles, presidents who served in their position for less than a year, and accounting for presidential vacancies, the number of CCC presidents who were invited to participate in the study was reduced from 116 to 93. Further, since there are significantly fewer UC campuses compared to CSUs and CCCs, to ensure a response representative of the UC executive leader collective, two additional high-level executives from each UC campus (e.g., vice chancellor, provost) were also invited to participate. A quantitative survey study that solicited participation from all CCC presidents yielded a 32% response rate (Crow, 2014), and therefore, the researcher anticipated a similar response rate (or lower) given the demands of the global pandemic and time commitment required for an interview. If total response rate was to exceed 35% ($N = 50$) then the researcher would have engaged in stratified random sampling and stopped interviewing once saturation of developing themes had been achieved. Solicitation to participate occurred in June of 2021, with interviews to be conducted before the fall 2021 term commenced. It should be noted that during this summer, CEOs were navigating extra demands as they planned safe returns to in-person instruction, labor negotiations to bring faculty and staff back, and development of COVID-19 vaccination protocols.

Data Collection

Data collected included online biographies, curriculum vitas, email communication, and semistructured interviews. Each consenting participant received an email containing a unique Zoom URL with embedded password to be utilized the day of their interview. Most interviews ($n = 45$) were conducted via Zoom virtual conferencing software and two were conducted via telephone. At the start of each interview, participants were reminded that their participation was

voluntary and could be ended at any time. All participants were reminded that their name and school name would remain confidential throughout all phases of the research study. Participants were also asked permission to be recorded via Zoom for the purpose of researcher data analysis. All but one participant agreed to have their interview recorded. Zoom virtual conferencing software provides auto-generated transcripts, which were used. Because the accuracy of the auto-generated transcripts was 80-85%, the researcher increased reliability of data by reviewing each auto-generated transcript, cross-checking it with the video recording to correct transcription errors and to ensure that the transcription accurately reflected participants' responses. The extra time spent correcting transcriptions provided the researcher with multiple data contact points. Additionally, throughout transcription correction the researcher noted participant tone, attitude, and body language. The average interview was 35 min.

To capture the lived experiences and perceptions of research participants, several open-ended questions were included during the semistructured interviews as well as two open-ended questions during member check emails (Babbie, 2017; Creswell & Creswell, 2018). The use of semistructured interviews allowed the researcher to ask several broad questions, providing research participants the space to share their perceptions and lived experiences as a California community college or university CEO (Creswell & Creswell, 2017; Strauss & Corbin, 1990). The researcher engaged in memoing throughout the data collection process (Corbin & Strauss, 2015). This provided space for additional review and reflection of information shared after each interview. It also allowed the researcher to tailor interview questions during subsequent interviews, following up on topics and concepts introduced by prior participants (Corbin & Strauss, 2015). The objective was to collect breadth and depth of data until saturation (Corbin &

Strauss, 2015; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020) was reached to develop a framework of public higher education administration (Creswell & Poth, 2018).

To validate data collected from such a large sample ($N = 47$), the researcher sent synthesized member check emails with a summary of themes that emerged during open coding and provided participants the opportunity to confirm or disconfirm data shared in the summary (Birt et al., 2016; Harvey, 2015). During member check emails, participants were also afforded the opportunity to provide additional commentary that may have arisen as a result of reading the collective response of their colleagues across the state. Member checking techniques were first introduced by Lincoln and Guba (1985) to enhance rigor and credibility of qualitative research and are commonly employed. Birt et al. (2016) defined synthesized member checking as "the co-constructed nature of knowledge by providing participants with the opportunity to engage with, and add to, interview and interpretation data, several months after their semistructured interview" (p. 2).

Chapter 1 Summary

The educational inequities presented in this chapter are systemic and the result of decades of policies and practices that have disenfranchised many California students. Even though California is home to the nation's largest higher education systems, California is last in providing baccalaureate degree access to its residents (Bustillos et al, 2017; Campaign for College Opportunity, 2021). While employers demand more highly skilled, college-educated employees, there is a need to understand the structural ecosystem of California public higher education, and more specifically, barriers across all levels that reduce baccalaureate degree completion. This qualitative grounded theory study sought to dig deeper into California higher education ecosystem intricacies by obtaining the perspective of executive leaders across all three segments

(i.e., UC, CSU, CCC). Statewide CEOs are strategically positioned to provide a broad perspective of the multitude of issues at hand, as they facilitate alignment between macro (federal, state, system offices), meso (regional industry, local city governance), and micro (institution and/or district) forces. As such, their unique perspectives can lead to fruitful ideas for improving the efficiency of baccalaureate degree attainment for California students. Tracy (2020) suggested that researchers go beyond providing unfavorable raw data to participants; they go a step further and offer recommendations "about how the information may be fruitfully understood and applied" (p. 349). Ultimately, the purpose of this study was to develop a public higher education administration framework grounded in the complex realities described by research participants. This framework can further inform and advise policymakers, systemwide leaders, and institution site-level personnel, in hopes of increasing California student baccalaureate attainment, which in turn will positively impact all Californians.

Defining Key Terminology and Acronyms

ACT. American College Testing.

ADT. Associate Degree for Transfer–The Associate in Art for Transfer (AA-T) and the Associate in Science for Transfer (AS-T) degrees are no more than 60 semester/90 quarter units and transferable to CSU. Sometimes referred to as a "Degree with a Guarantee," students who meet CSUs minimum eligibility requirements are guaranteed priority admission to a CSU campus, though not necessarily to a particular campus or major. ADTs are a joint effort between CCCs and CSU to streamline transfer pathways established as a result of the Student Success Act of 2012 (SB 1456). More details available at https://www.calstate.edu/apply/transfer/pages/ccc-associate-degree-for-transfer.aspx.

AP. Advanced Placement.

ASSIST. Articulation System Stimulating Interinstitutional Student Transfer. The repository of articulation agreements for UC, CSU, and CCC.

CADAA. California Dream Act Application. Financial aid application for students wishing to attend a California college or university that do not meet FAFSA eligibility requirements.

CAS. Complex adaptive system.

CBU. California Baptist University.

CCC. The California Community Colleges system, which includes 73 districts and 115 campuses. Cal Bright is the 116th and fully online campus that only offers noncredit coursework.

CCCCO. California Community College Chancellor's Office.

CEO. At UC, CEOs of individual campuses hold the title of Chancellor, while the systemwide leader holds the title of president. Therefore, CEOs and other high-level UC executive leaders will be referred to as CEO throughout the study.

CMPHE. California master plan for higher education (1960).

COA. Cost of attendance.

COLA. Cost-of-living adjustment.

COVID-19. Coronavirus global pandemic that commenced in 2019.

CSAC. California Student Aid Commission.

CSU. California State University, which includes 23 campuses.

CTE. Career and Technical Education.

DACA. Deferred Action for Childhood Arrivals.

DEI. Diversity, equity, and inclusion.

EMP. Educational master plan.

FAFSA. Free Application for Federal Student Aid.

FTES. Full-time equivalent student. FTES is a common metric used to track enrollment and funding allocations which formulizes both full-time and part-time student enrollments.

FTF. First-term freshman.

FWS. Federal work study.

GI 2025. In 2009 California State University launched a systemwide Graduation Initiative to improve 6-year completion rates and halve first-time freshman achievement gaps by 2016. Based on the success of exceeding initial goals, it was extended through 2025 with more ambitious targets.

GPA. Grade point average.

HUD. Housing and Urban Development.

IB. International Baccalaureate.

IRB. Institutional Review Board.

MCE. Member check email correspondence with participants.

MOU. Memorandum of Understanding.

Neo-traditional. This term is used to identify students who identify with any of the following parameters:

- Did not graduate high school or receive a general education development (GED) test or other high school equivalency certification

- Had a gap between high school completion and starting college (dual enrollment coursework excluded)

- Adult re-entry students who previously attend college but did not finish a certificate and/or degree

- Age 25 or older

- first-generation college students (legal parent(s) and/or guardian(s) do not have a baccalaureate degree

- Do not meet full-time enrollment requirements at the college/university of attendance during main terms (summer and winter excluded)

- Student and/or their immediate family of residence are considered low-income, as defined by federal, state, or county thresholds

- Have one or more dependent children and/or are a single parent

- Work full-time

- Identify with a racial or ethnic group that has been historically marginalized (i.e., African American, Black, Latinx, Native Alaskan, Pacific Islander, etc.).

It is important to note that students hold a variety of social identities that converge, and they are not necessarily mutually exclusive.

OECD. Organization for Economic Cooperation and Development. Founded in 1961 for market-based countries to compare and collaborate policy standards to promote sustainable economic growth.

PPIC. Public Policy Institute of California is a nonprofit, nonpartisan think tank dedicated to informing and improving public policy in California.

President. At CSU, CEOs of individual campuses hold the official title of president, while the systemwide leader holds the title of chancellor. Therefore, CSU research participants are referred to as president throughout the study. The CCC includes 116 colleges which are overseen by 73 independent districts. That means some CCC CEOs hold the title of president (those that operate in multicollege districts), while others may hold the title of

president/superintendent (those that operate as a single college district). For the purposes of this study, all CCC research participants are referred to as presidents.

SAT. Scholastic Aptitude Test.

SCFF. Student-centered funding formula recently enacted in 2018 for CCCs.

STEM. Science, technology, engineering, math.

TAG. Transfer Admission Guarantee program offered by six of nine UC undergraduate campuses for some (not all) majors.

Transfer. While students in California are notorious for "swirling" (i.e., earning credit at multiple institutions before degree completion), there are a variety of different potential transfer scenarios, including lateral transfer (2-year to 2-year or 4-year to 4-year), reverse transfer (4-year to 2-year, which may be temporary such as summer terms only), and vertical transfer (2-year to 4-year). For the purpose of this study, research and interview questions that refer to transfer are referencing the vertical transfer function in California where a student ascribes to transfer from a community college to a baccalaureate granting institution. However, that is not to say that lateral transfer or reverse transfer students are excluded in these conversations.

UC. University of California, which includes 10 campuses, nine of which offer baccalaureate programs.

PART 1

Nature of the Research Problem

Part 1 The Nature of the Research Problem	Chapter 1 Introduction/Problem Statement
	Chapter 2 Literature Review

Part 2 Research Methodology & Procedures	Chapter 3 Research Methodology

Part 3 Findings	Chapter 4 Research Results and Analysis

Part 4 Conclusion	Chapter 5 Discussion and Conclusions

CHAPTER 2: REVIEW OF THE LITERATURE

Chapter 2 Overview

Chapter 2 documents the past and present landscape of U.S. higher education, with a nuanced focus on California. Topics reviewed include the California Master Plan for Higher Education (CMPHE), the history of higher education state funding, and the ever-increasing mismatch between baccalaureate degree-seeking students and California public higher education capacity to admit all eligible students. A brief historical review of the evolving role of higher education CEOs is also documented. Detailed explanations for the use of two theoretical frameworks—institutional theory and complexity theory—are included. The following literature review addressed five topics: (a) past and present landscape of higher education, (b) the intersection of higher education and complexity theory, (c) right to fail ideology, (d) a shift to student-centered ideology and research, and (e) relevant higher education leadership practices. Lastly, qualitative grounded theory methodology literature is reviewed to justify use in this study.

Overview

U.S. public colleges and universities are internally complex, serving varying and multiple missions. For example, community college missions include open access, workforce training (credit and noncredit), basic skills remediation, vocational certificates and degrees, preparation for transfer, and lifelong learning. Whereas, 4-year universities focus on advancing knowledge (through research), learning, and sociocultural norms. Further, different missions are connected to different external funding sources (local, state, federal, industry, and private donors). Each mission and/or funding source requires different inputs and/or outputs to be eligible for said funding. Bolman and Deal (2017) documented this dilemma, stating, "Because organizations

depend on their environment for resources they need to survive, they are inevitably enmeshed with external constituents whose expectations or demands must be heeded" (p. 223).

Public higher education institutions are forced to be highly adaptable, as state government exerts pressure through frequent policy and funding mandates (Levin et al., 2018). Levin et al. (2018) observed that "organizational members and their actions influence and shape the reception and acceptance or rejection of state policies and practices" (p. 215). Unlike other states, California does not have one governing body that oversees higher education (H. Johnson & Mejia, 2017). Instead, colleges and universities are governed by a mix of government and independent entities (i.e., California student aid commission, U.S. Department of Education, and accrediting bodies). Because higher education oversight in California is fractured, it makes it difficult to implement and assess statewide goals (H. Johnson & Mejia, 2017).

From the beginning, U.S. higher education was enmeshed within competing narratives, including democracy, regulation, community, and leadership (Bolden et al., 2013). Further, higher education is riddled with numerous competing logics (e.g., access vs. quality; affordability vs. quality; research vs. teaching; liberal arts vs. workforce training; academics vs. co-curricular activities; public vs. private gains, etc.). How can these competing priorities be balanced? Who is responsible for maintaining equilibrium? These questions are explored in more detail in this chapter.

Theoretical Framework

The historical review of U.S. higher education and the evolving role of the president outlined in this chapter, was viewed using two theoretical frameworks—institutional theory and complexity theory. The former justifies the multitude of competing logics that have emerged

over time, and the later explains why higher education compounded and magnified its competing logics.

Institutional theory arrived in 1957 with the seminal book *Leadership in Administration: A Sociological Interpretation*, which postulated that organizations are social organisms (Selznick, 1957). Institutional theory derived from rational choice theory as a means of analyzing how processes, structures, rules, and norms become established as authoritative guidelines for social behavior. Institutional theory suggests that legitimacy is gained by mirroring environmental scripts. Something becomes institutionalized when it becomes so ingrained in values that it takes on rule-like status. Once institutionalized, whatever change occurs will lead toward greater conformity, facilitated by three isomorphic processes—coercive, mimetic, and normative (DiMaggio & Powell, 1991).

Brint (2019) utilized institutional theory to document three overarching competing logics of U.S. higher education, "The search for as-yet un-discovered knowledge, the pursuit of new market opportunities, and the movement for greater social inclusion" (p. 373). Institutional logics are the foundation upon which organizations pursue their goals—guiding individual and organizational behavior (Levin et al., 2018). Levin et al. (2018) stated, "Institutional logics provide for organizational stability because they both lead to and reinforce organizational practices and social interactions" (p. 198). Institutions have the ability to reconstruct assumptions, norms, values, and beliefs because their environment is not monolithic but often filled with conflicting institutional logics. Colleges and universities are known for their diversity of missions, which is further complicated by their complexity of funding, in which different missions are connected to different funding sources (local, state, and federal), each of which requires different inputs and/or outputs to be eligible for funding. This is further compounded by

rationalized nontechnical aspects such as athletic programs, extracurricular activities, student support services, and commencement ceremonies, all of which require additional human and fiscal resources. However, these practices are now institutionalized as they represent legitimacy for colleges and universities. These activities that extend beyond the academic core mission therefore become infused with institutional values and require presidential time and attention.

Complexity theory postulates that "most of life is too complex to be reduced to simple cause and effect relationships" (Shoup & Studer, 2010, p. 3). Koch (1999) documented a shift from rational thinking in the first half of the 20th century to a more nonlinear approach, noting,

> But in the second half of the twentieth century it seems much more accurate to view the world as an evolving organism where the whole system is more than the sum of its parts, and where relationships between parts are nonlinear. Causes are difficult to pin down, there are complex interdependencies between causes. … The snag with linear thinking is that it doesn't always work, it is an oversimplification of reality. (p. 13)

Koch (1999) added, "Yet chaos theory, despite its name, does not say that everything is a hopeless and incomprehensible mess. Rather there is a self-organized logic lurking behind the disorder, a predicable nonlinearity" (p. 13). In a system as complex as public higher education, where a multitude of micro, meso, and macro forces and levels of authority pervade, reducing problems to linear solutions is ineffective. As such, California student baccalaureate attainment cannot simply be evaluated under the contexts of student preparation, motivation, or grit. Instead, societal, political, and structural facets must also be examined, and complexity theory provides an appropriate framework in which to explore these.

Complexity theory provides a comprehensive assessment of the hidden architecture common to all complex adaptive systems (CAS), which includes strange attractors (values and norms); homeostasis and change (equilibrium); cybernetics (feedback); fractals, emergence, and sensitive dependence (initial conditions, and self-organized criticality; Barabasi & Bonabeau,

2003; Gleick, 1987; Shoup, 2016; Shoup & Studer, 2010). These variables are not mutually

exclusive, and as such, a CAS operates as a dynamic system. CAS can be found in nature (e.g.,

rivers) as well as man-made forces (e.g., stock market). While complexity may exist in all

systems, depth of complexity is a function of the number of internal and external demands, the

size and number of layers, and the amount and speed of feedback. Figure 6 identifies variations

in levels of complexity. Items included in Figure 6 are not intended to document which systems

are the most complex, but instead are a means of identifying variations in complexity when

compared to relative counterparts (Shoup & Studer, 2010).

Figure 6 – Institutions and activities that do and do not lend themselves to linear solutions
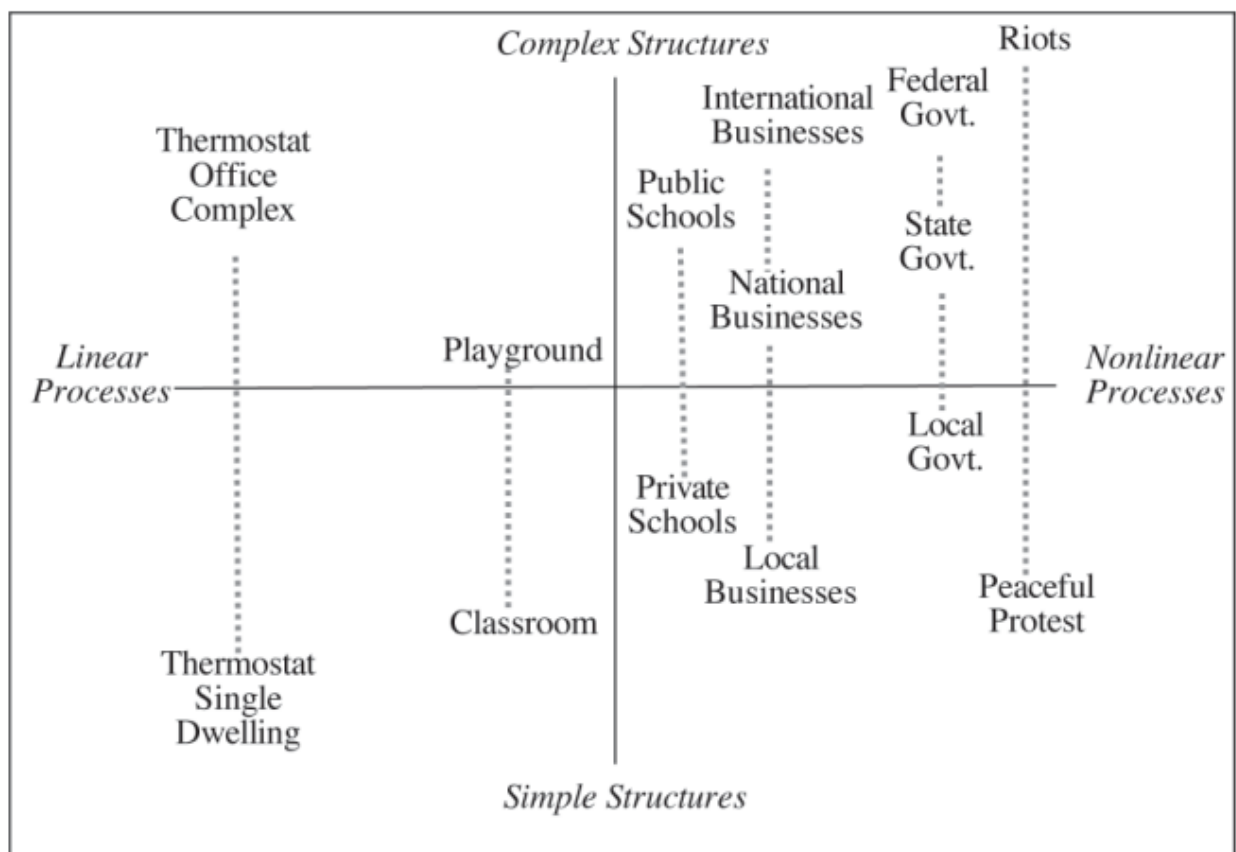
Note. From *Leveraging Chaos: The Mysteries of Leadership and Policy Revealed*, by J. R. Shoup & S. C. Studer, 2010, p. 6. Rowman & Littlefield Publishers, Inc.

When reviewing a historical account of U.S. higher education, one would be hard pressed to not classify it as a CAS. Historian Thelin (2019) documented, "Whether 1910 or 2019, an element of continuity is that our colleges and universities are constantly changing, both by accident and design" (p. ix). When faced with chaotic environmental forces a CAS will automatically self-correct (Gleick, 1987). The same holds true for U.S. higher education. Since the first U.S. colonial college was established in 1636 (i.e., Harvard), higher education institutions have continually evolved by adapting to sociopolitical forces (Thelin, 2019). Yet, while a CAS is forced to change, feedback loops occur, which serve as continual reinforcement. So as the French proverb states, "The more things change, the more they stay the same" (Karr, 1849, para. 1).

Review of Relevant Research Literature

Empirical studies on a variety of higher education topics are abundant and include research on teaching and learning (Boshier & Huang, 2008; Boyer, 1990; Broadbent & Poon, 2015; Coffield et al., 2004; Kreber, 2001; Severiens & Ten Dam, 1994; Tight, 2018), course design (Bishop & Verleger, 2013; Brewer & Movahedazarhouligh, 2018; P. Cohen et al., 1981; Gibbs et al., 2017; Santos et al., 2019; Van Alten et al., 2019), student outcomes (Astin, 1997; Bliming, 1989; Bowen, 1977; Crede et al., 2010; Feldman & Newcomb, 1969; Honicke & Broadbent, 2016; Mayhew et al., 2016; Pascarella & Terenzini, 1991, 2005), as well as those that document lived experiences of different student populations (Barry et al., 2014; Bradbury-Jones et al., 2019; Kasworm, 1990; Kimball & Thoma, 2019; R. Johnson, 2019; Lin, 2016; Nichols & Stahl, 2019; Rubin, 2012), including vertical transfer students (Diaz, 1992; Schudde & Brown, 2019). But reality is socially constructed (Berger & Luckmann, 1966); the quality of higher

education is not the sole burden of instructors, just as outcomes are not solely the result of student behaviors. According to ecological systems theory,

> All the students themselves, educators, educational leaders, policymakers, public media, political leaders, social values, cultural practices, socioeconomic status, and historical backgrounds of the community are responsible together to determine the quality of higher education and students' academic success. (Mulisa, 2019, p. 112)

As many educators, researchers, and policymakers historically focus on student-driven behaviors and characteristics, it would behoove them to understand social construct theory (Berger & Luckmann, 1966) and ecological systems theory (Broffenbrenner, 1977; Mulisa, 2019) to evaluate the impact of institutional practices and higher education structures. The literature review addresses five topics: (a) the past and present landscape of higher education, (b) the intersection of higher education and complexity theory, (c) right to fail ideology, (d) a shift to student-centered ideology and research, and (e) relevant higher education leadership practices.

Past and Present Landscape of Higher Education

Aside from India, the United States is home to more higher education institutions than any other country and spends more per student than all but one (Luxembourg) of the 35 countries that comprise the Organization for Economic Cooperation and Development (OECD, 2019). In 2020, the United States ranked seventh in postsecondary degree attainment for adults (ages 25 to 64) among the 35 OECD countries. While U.S. adult postsecondary degree attainment increased from 36% to 51% between 2000 to 2020, Table 1 shows that 21 other countries saw larger gains over the same time frame (Irwin et al., 2021; OECD, n.d.). Further, adults who earn science, technology, engineering, or math (STEM) degrees earn twice as much as their non-STEM-degree counterparts, yet only 25% of U.S. degrees conferred are in a STEM (Irwin et al., 2021). In 1980, the United States was a leader in baccalaureate degree attainment, only second to Canada, but 35

years later has fallen to the middle of the OECD (n.d.) pack. Newfield (2016) claimed that the decline of public higher education funding is directly correlated to the stagnation of U.S. college degree attainment.

Table 1 – Percentage of 25- to 64-year-olds with tertiary education

Country	2000	2010	2020	2000–2010 Gains	2010–2020 Gains	2000–2020 Gains
Luxembourg	18.28	35.48	51.31	17.19	15.84	33.03
Ireland	21.61	37.58	49.94	15.97	12.36	28.33
Korea	23.85	39.04	50.71	15.20	11.66	26.86
Great Britain	25.68	38.19	49.39	12.50	11.20	23.71
Australia	27.48	37.60	49.34	10.13	11.73	21.86
Poland	11.36	22.47	32.88	11.11	10.41	21.51
Switzerland	24.18	33.88	45.28	9.70	11.40	21.10
Slovenia	15.73	23.72	35.88	7.99	12.16	20.15
Canada	40.11	50.31	59.96	10.21	9.65	19.86
Latvia	18.22	26.95	37.83	8.73	10.89	19.62
Portugal	8.84	15.45	28.16	6.60	12.72	19.32
Netherlands	23.38	32.39	42.64	9.01	10.26	19.27
Japan	33.62	44.81	52.68	11.19	7.87	19.06
France	21.58	29.01	39.72	7.42	10.71	18.13
Spain	22.70	31.02	39.69	8.31	8.67	16.98
Slovak Republic	10.37	17.33	26.77	6.95	9.45	16.40
Belgium	27.08	34.99	42.44	7.90	7.45	15.36
Finland	32.61	38.15	47.87	5.53	9.73	15.26
Greece	17.67	24.74	32.74	7.07	8.00	15.07
Sweden	30.12	33.87	44.61	3.75	10.74	14.49
Czech Republic	10.96	16.76	24.85	5.80	8.09	13.89
USA	36.49	41.66	50.06	5.17	8.39	13.56
Estonia	28.67	35.42	42.21	6.75	6.79	13.54
Hungary	14.04	20.12	27.20	6.08	7.08	13.16
Italy	9.38	14.80	20.14	5.43	5.33	10.76
Costa Rica	16.45	20.98	25.11	4.53	4.13	8.66
DEU	23.50	26.61	31.26	3.11	4.65	7.76
Mexico	14.64	14.65	19.43	0.02	4.78	4.80
Lithuania	41.80	32.44	44.14	-9.36	11.70	2.34

Note. From *Education at a Glance: Educational Attainment and Labour-Force Status from OECD*, by Organization for Economic Cooperation and Development, n.d. (https://data.oecd.org/eduatt/adult-education-level.htm#indicator-chart).

The Center on Budget and Policy Priorities (Mitchell et al., 2019) found that adjusted for inflation, 41 states spent less per student between the 2008 and 2018. On average, states spent 13% less during this 10-year span, with six states (i.e., Alabama, Arizona, Louisiana,

Mississippi, Oklahoma, and Pennsylvania) spending more than 30% less (Mitchell et al., 2019). Funding cuts to public higher education are reticent of feedback loops found in CAS. U.S. politicians and higher education leaders of the mid-19th century knew that an inverse relationship existed between public funding and higher education access. They also knew that increasing affordability and access to the boarder society in turn benefits regional economies. This knowledge was evident in the Morrill Land Grant Acts.

Fast forward more than a century later—what happened? Three factors converged in the 1940s—an increasing U.S. population and departure from agrarian society, the Truman report (President's Commission on Higher Education, 1947), and the passage of the GI bill. These sociopolitical events spurred a shift in U.S. higher education from mass access (15%-49% of college-age population) to universal access (50%+ of college-age population; Trow, 1973). It is important to note that since higher education funding is often in direct competition for other public services (e.g., K-12 education, healthcare, criminal justice, etc.) a feedback loop began. These competing public services do not have external mechanisms to increase their funding base, but higher education did, by charging students tuition and fees. State legislators knew this and leveraged that knowledge to prioritize other public social services over higher education during economic downturns. Legislators know that, if necessary, the universities will simply raise student tuition to offset any state funding gaps. Longstanding UC faculty member and 10-year member of the UC Academic Senate planning and budget committees, Newfield (2016) shared, "When senior academic managers responded to funding cuts with tuition hikes, legislatures learned that their next funding cut would be offset in the same way. This is a simple feedback loop that was well entrenched by 2008" (p. 169).

After examining National Educational Longitudinal Study data from the 1970s, 1980s, and 1990s, the National Bureau of Economic Researchers (2019) found that institutionally controlled factors, such as enrollment rationing and selectivity, have more impact on baccalaureate attainment even after controlling for student characteristics like academic preparation (Bound et al., 2009; Geiser & Atkinson, 2012). Newfield (2016) also suggested that university selectivity is a better predictor of graduation rates than student's college preparatory coursework in K-12. Additionally, data illuminate that historically minoritized and low-income students in fact undermatch themselves to less selective schools (Hoxby & Avery, 2012; Roderick et al., 2008). Research found negative consequences for students who start their higher education journey at a community college, as Bound et al. (2009) elaborated:

> The key finding of this analysis is that the supply-side of higher education plays an important role in explaining changes in student outcomes. The higher education literature has focused on how student preparation for college translates into college success. Our analysis suggests that, at least for changing completion rates, student preparation is only a partial explanation; characteristics of the supply-side of the market have a substantial influence on student success in college. … [W]e find the shift in the distribution of students' initial college type, largely the shift toward community colleges, explains roughly 3/4 of the observed decrease in completion rates. (p. 30)

Students who start at selective 4-year institutions complete baccalaureate degrees at significantly higher rates than those who began elsewhere (Geiser & Atkinson, 2012). However, prepandemic, 35% of students across the United States began their higher education journey at a community college (CCRC, n.d.).

Better student success outcomes at selective higher education institutions may be a direct correlation to their increased resources compared to public higher education institutions. In 2013, the Georgetown Center for Education and Workforce published *Separate and Unequal: How Higher Education Reinforces the Intergenerational Reproduction of White Privilege* (Carnevale & Stronl, 2013)*.* The Georgetown report found that U.S. selective colleges and universities spend

two to five times more per student, which results in lifelong benefits, such as greater access to graduate programs and better labor market outcomes. Data also revealed that "since 1995, 82 percent of new white enrollments have gone to the 468 most selective colleges, while 72 percent of new Hispanic enrollment and 68 percent of new African-American enrollment have gone to the two-year and four-year open-access schools" (Carnevale & Strohl, 2013, p. 9).

The Role of Community Colleges

Community colleges have been an integral feature of U.S. higher education since 1901 (Brint & Karabel, 1989; Thelin, 2019). Policymakers solidified their role in providing Americans a path toward upward mobility in the 1947 Truman report (President's Commission on Higher Education, 1947). Presently the United States is home to more than 1,400 community colleges that educate five million students (NCES, n.d.-a, n.d.-b). Since their inception, the primary mission of U.S. community colleges was to prepare students who otherwise were not able to attend a baccalaureate-granting institution directly after high school (Brint & Karabel, 1989). However, the majority of community college students who aspire to transfer ultimately do not. Nationally, while 80% of community college students intend to earn a baccalaureate degree, only 30% transfer to a 4-year university successfully, where only 14% finish their degree (Jenkins & Fink, 2016; Melguizo & Witham, 2018; Shapiro et al., 2021). National data also reveal that White students and those from higher income families are twice as likely to transfer compared to Black, Latinx, and low-income students (Causey et al., 2020; Shapiro et al., 2021). Haveman and Smeeding (2006) found that only 7% of low-income students attain a baccalaureate degree by age 26, compared with 51% of the wealthiest quartile of students. Furthermore, the number of community college transfer students who earn a STEM baccalaureate degree is even more

disparate (Jaggars et al., 2016; National Academies of Sciences, Engineering, and Medicine, 2016), demonstrating the lack of opportunity for transfer to high status fields of study.

Many baccalaureate degree-seeking students who begin at a community college are inherently different than their peers who enroll initially at a 4-year institution; they cannot afford the 4-year institution tuition, need to stay close to home, and some require remedial education (Ortagus & Hu, 2019). Students who initially enroll at a 4-year institution are more likely to be academically prepared and come from higher income families, which therefore, can confound research that examines higher education retention and completion rates (A. M. Cohen et al., 2014).

Climate of California Higher Education

Enacted in 1960, the CMPHE was only meant to guide state higher education decisions through 1975, yet no major changes have been made since its inception (California Governor's Office of Planning and Research, 2018). The CMPHE purposefully devised a three-tiered system, in which each segment holds different mission statements and serves different student populations (California Department of Education, 1960). The nine undergraduate campuses of the University of California (UC) emphasize research, accepting only the top 12.5% of high school graduates (California Department of Education, 1960). The 23-campus California State University (CSU) emphasizes teaching, accepting the top 33.3% of local high school graduates (California Department of Education, 1960). Lastly, the California community colleges (CCCs) were designed to provide open access to *all* students, even those without a high school diploma (California Department of Education, 1960). As outlined in the 1960 CMPHE, the transfer function has been a primary mission of CCCs, a belief that still holds true for 94% of CCC administrators (Bohn et al., 2013). The CCC system is the largest higher education system in the world, and pre-COVID, was serving 2.1 million students across 116 community colleges

(CCCCO, n.d.-a). However, the CCCs have experienced significant enrollment declines resulting

from the COVID-19 global pandemic, and now serve approximately 1.8 million students

(CCCCO, n.d.-a). Between fall 2019 and 2021, CCCs have lost 19% headcount (CCCCO n.d.-a).

These CCC enrollment declines will invariably impact future transfer applications for both UC

and CSU.

In California, baccalaureate degree attainment for UC and CSU students exceeds most

other states (Reddy & Dow, 2021). In 2018, the national average of undergraduate credentials

and degrees awarded per 100 full-time equivalent students (FTES) was 23.997 and California

exceeded 47 other states by awarding 26.954 per 100 FTES (National Center for Higher

Education Management Systems [NCHEMS], n.d.). However, the Campaign for College

Opportunity (2021) *Shut Out* report shared that,

> California's progress in awarding bachelor's degrees is uneven across regions and
> racial/ethnic populations with improvement largely concentrated in counties with higher
> educational attainment and among racial/ethnic populations already more advantaged in
> both college enrollment and completion, leaving large equity gaps. (p. 8)

Reddy and Dow (2021) suggested that UC should improve percentage of awards from 25.6 per

100 FTES to 28.6 and that CSU should improve percentage of awards from 27 per 100 FTES to

31.6. Further, baccalaureate degree completion for CCC students is substantially lower than

national averages, with only 5% of degree-seeking community college students earning a

baccalaureate degree within 6 years, and 16% earning an associate degree within the same

timeframe (McClenney et al., 2019).

Even with a projected 1.1 million shortage of baccalaureate degree earners in California

by the year 2030 (Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al,

2015), there are signs of hope that baccalaureate degree attainment can increase. National

surveys show that more than 90% of high school seniors have some type of higher education

aspirations, and the majority of California parents (79%) are supportive of their children

pursuing a baccalaureate degree or higher (Baldassare et al., 2019). However, in contrast to

parent and student goals, Figure 7 highlights a drastic gap between academic goals and

attainment, with only 30% of high school freshman earning a baccalaureate degree (Gao &

Johnson, 2017). California high school freshman veer off their higher education pathway at

various points; 18% never finish high school, while another 34% attend college, but never earn a

baccalaureate degree (Gao & Johnson, 2017). The most critical time periods where students are

most likely to veer off path are their last 2 years of high school and first 2 years of college (Gao

& Johnson, 2017). Approximately 78% of California high school graduates attend college, most

(56 %) of which attend a CCC (Gao & Johnson, 2017). However, only 19% of CCC students

who intend to transfer do so within 4 years, and 28% do so within 6 years (Johnson & Mejia,

2020). Even more troubling, while 51% of CCC students who declare an intent to transfer are

Latinx, only 35% of CCC Latinxs students transfer within 4 years (H. Johnson & Mejia, 2020).

Figure 7 – Too few California high school students complete college
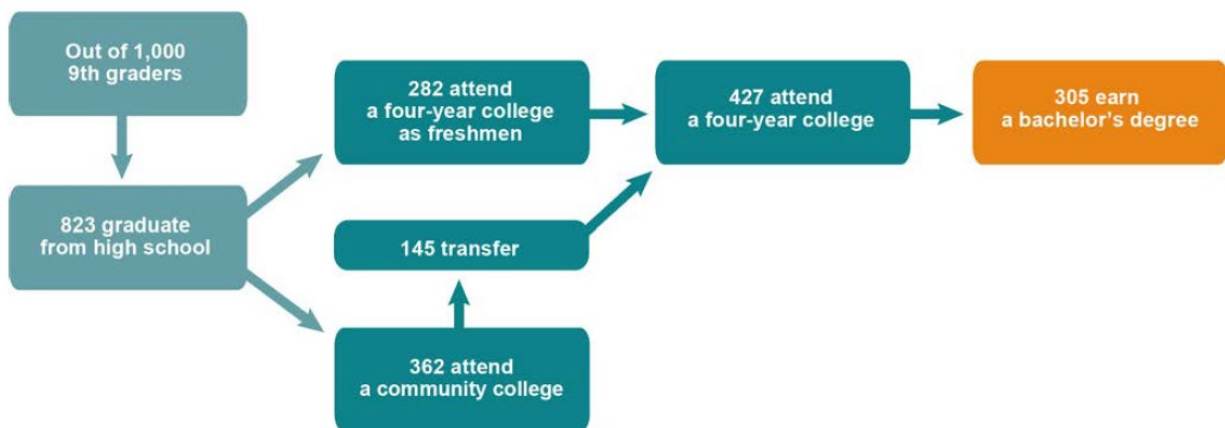
Note. From *Improving College Pathways in California,* by N. Gao & H. Johnson, 2017, p. 5, Public Policy Institute of California (PPIC). PPIC calculations based on current rates of high school completion, college enrollment, and college completion; rates calculated using data from the California Department of Education (2015-16), the California State University (2015), the University of California (2015), and the Integrated Postsecondary Education System (2014).

Between 2007-08 and 2017-18 the percentage of California high school students who completed the minimum CSU/UC eligibility requirements (aka A-G) increased 67% from 127,600 to 213,700 (Cook & Mehlotra, 2020). Between 2007 and 2015, the number of CSU-eligible high school graduates increased 50% and the number of UC-eligible high school graduates increased 30% (Silver et al., 2017). In 2015, 40% of California high school graduates met CSU eligibility requirements, which was 10% above the CSU targets outlined by the CMPHE, and 13.8% met UC eligibility requirements, which was 1.3% more than UC targets outlined in the CMPHE (Silver et al., 2017). These data were based on the 2015 graduating class and likely underestimated the current percentage of high school graduates meeting UC and CSU admission requirements, especially since the removal of SAT/ACT scores for use in eligibility index calculations. Furthermore, the percentage of UC- and CSU-eligible Latino students increased from 22% to 42% between the 2003-04 and 2016-17 academic years (Jackson et al., 2019). The increasing number of CSU- and UC-eligible students is promising to meet California labor market demands; however, universities have not been able to keep up with the increasing demand.

In addition to the rising percentage of high school graduates satisfying UC and CSU eligibility requirements, the percentage of applications has also increased. Between 2001 and 2020, the share of California high school senior UC applications rose from 17% to 25% and CSU applications rose from 27% to 37% (peaking to 41% in 2017; Campaign for College Opportunity, 2021). Since 2000, CSU freshman applications have increased by 100,000 while CSU transfer applications have risen by 70,000 (Cook & Mehlotra, 2020). Since the 2008 recession, the number of eligible CSU students who were *denied* admission (both freshmen and transfer) increased fivefold, from 6,600 eligible students in 2008-09 to 34,400 in 2018-19 (Cook

& Mehlotra, 2020). Between 2013 and 2016, CSU denied admission to 69,000 *eligible* California high school graduates and 35,000 *eligible* transfer students (Gao & Johnson, 2017). Capacity constraints vary by campus and program and presently, 16 of the 23 CSU campuses are impacted for freshman (Campaign for College Opportunity, 2021; H. Johnson, 2020). As shown in Figure 8, between 2012-13 and 2021-22 the percentage of impacted programs have increased across most CSU campuses. California high school graduates earning a 2.50 grade point average (GPA) in A-G college prep coursework are eligible for CSU admission and students with a 2.00-2.49 GPA may be eligible based on other supplemental factors (CSU, n.d.-a).

Figure 8 – Impacted programs across most CSU campuses increased between 2012-13 and 2021-22
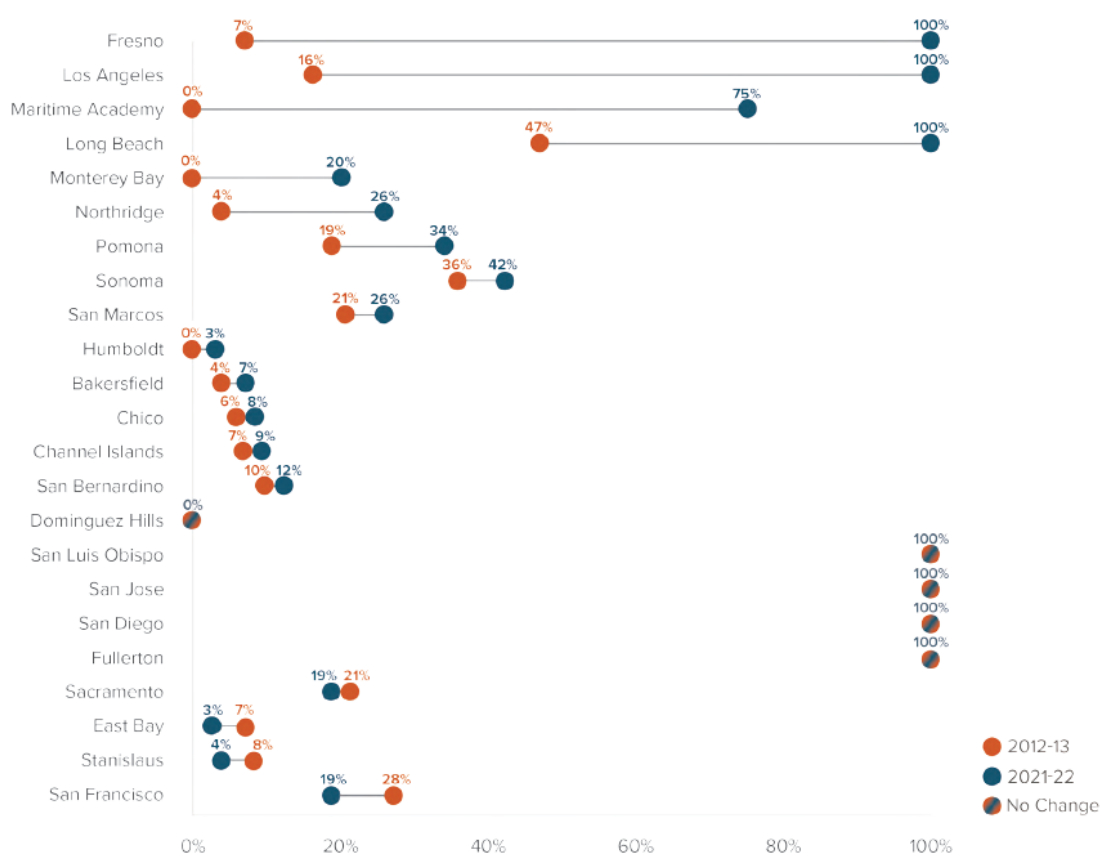
Source. CSU Chancellor's Office Impacted Programs Matrix, 2012-13 and 2021-22. From *Shut Out: The Need to Increase Access to the University of California and California State University,* by Campaign for College Opportunity, 2021, p. 18 (https://collegecampaign.org/portfolio/shut-need-increase-access-uc-csu/).

However, CSU eligibility does not guarantee students' admission to their local or preferred campus and may result in their application being redirected to one of the nonimpacted campuses. In 2020, more than 7,000 freshman and 5,000 transfer applicants were offered admission to a "redirected" campus; however, few applicants accepted their spot (1.7% freshman and 12% transfer; Campaign for College Opportunity, 2021; Hwang, 2021).

Like most CSU campuses, all UC undergraduate campuses are impacted, except for UC Merced. California high school graduates earning a 3.00 GPA in A-G college prep coursework are eligible for a UC "comprehensive" application review, while applicants in the top 9% of their high school class qualify for a guaranteed spot at UC but not to a specific campus. However, this is still a pseudo-guarantee as the UC admission website for California residents states, "If space is available" (UC, n.d.-a, para. 1). Between 2010 and 2014, UC redirected more than 51,000 *eligible* freshmen from their preferred campuses to UC Merced, where less than 1,000 of redirected students enrolled (Jackson et al., 2017). Further, in 2019, 12,000 UC applicants were redirected to UC Merced, where only 57 (0.5%) enrolled (University of California Academic Senate, Board of Admissions and Relations with Schools [BOARS], 2020). And even though UC pledged to admit 10,000 additional students between 2016 and 2018, thousands of eligible applicants were still turned away (Jackson et al., 2019). Researchers have found fond that "recent efforts to redirect students to campuses with more capacity are a step in the right direction, but ultimately more room is needed at high-demand campuses" (Cook & Mehlotra, 2020, p. 3).

The mismatch between eligible applicants and capacity constraints results in a highly competitive admission environment, which is evident in the rising GPA needed to be admitted to UC. The Campaign for College Opportunity (2021) *Shut Out* report found that "the average high school GPA of students admitted to the UC has increased to above 4.00 for nearly all nine UC

campuses. This was only true at three UC campuses in the 90s" (p. 3). Table 2 provides fall 2021

undergraduate application and enrollment data for each UC campus with delineations for

residency status, as well as freshman and transfer admit rates and GPAs. As the UC received

record-breaking numbers of applications for Fall 2021, likely a result of the removal of

SAT/ACT as an admission criterion (UC, 2020c), one can assume that the admission GPA

thresholds will only continue to rise if more space is not made available (UC, 2022d). For fall

2021 admission, UC received 250,155 unduplicated resident and nonresident undergraduate

applications, 46,313 of which were for transfer students (UC, 2022b; refer to Table 2). It should

be noted though, that while the number of California resident freshman applications increased

between fall 2020 and fall 2021, the number of enrolled California residents actually declined at

UC Los Angeles, UC Santa Barbara, and UC Santa Cruz (refer to Table 3). Similarly, while the

number of California resident transfer applications increased between fall 2020 and fall 2021, the

number of enrolled California transfer students declined at the UC Los Angeles, UC Santa

Barbara, and UC Davis, which resulted in a systemwide decline overall (refer to Table 3).

Table 2 – Fall 2021 University of California undergraduate application and enrollment data

		*Systemwide		Berkeley		Davis		Irvine		Los Angeles	
		n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Freshman	Total freshman applications	203,842		112,835		87,136		107,943		139,482	
	CA resident applications	128,256	62.90	62,191	55.11	60,984	69.98	78,027	72.29	84,182	60.35
	CA resident enrollments	39,648	76.64	4,875	70.33	5,562	74.33	4,601	70.90	4,545	69.03
	Nonresident domestic applications	46,197	22.66	29,663	26.28	9,534	10.94	11,699	10.84	33,423	23.96
	Nonresident domestic enrollment	6,071	11.73	1,160	16.73	499	6.67	971	14.96	1,354	20.57
	International applications	29,389	14.41	20,981	18.59	16,618	19.07	18,217	16.88	21,877	15.68
	International enrollments	6,008	11.61	896	12.92	1,421	18.99	917	14.13	685	10.4
	Total freshman enrollments	51,727		6,931		7,482		6,489		6,584	
Transfer	Total transfer applications	46,313		22,182		18,765		25,857		28,464	
	CA resident applications	39,442	85.16	17,781	80.16	15,924	84.86	21,918	84.77	23,446	82.37
	CA resident enrollments	18,825	87.52	2,209	83.42	2,666	94.64	2,402	83.90	2,944	85.73
	Nonresident domestic applications	1,470	3.17	705	3.18	360	1.92	510	1.97	943	3.31
	Nonresident domestic enrollment	154	0.72	22	0.83	7	0.25	19	0.66	21	0.61
	International applications	5,401	11.66	3,696	16.67	2,481	13.22	3,429	13.26	4,075	14.32
	International enrollments	2,530	11.76	417	15.75	144	5.11	442	15.44	469	13.66
	Total transfer enrollments	21,509		2,648		2,817		2,863		3,434	
Admit Stats	Freshman admit rate			14.50%		49.00%		29.00%		10.80%	
	Freshman admit GPA range			4.12-4.30		3.95-4.25		3.96-4.26		4.19-4.32	
	Transfer admit rate			19.00%		50.00%		37.00%		19.00%	
	Transfer admit GPA range			3.65-3.97		3.47-3.88		3.62-3.93		3.8-4.00	
Total Enrollment (new & continuing)	Total enrollment	230,529	%	31,814	%	31,657	%	29,449	%	32,122	%
	Female		54.10		54.00		59.50		53.90		59.20
	Male		44.20		45.00		39.00		44.80		39.70
	African American/Black		4.30		3.80		3.80		3.70		5.60
	Hispanic/Latinx		25.10		18.80		22.60		24.80		20.40
	American Indian		0.40		0.40		0.30		0.40		0.60
	Pacific Islander/Native Hawaiian		0.20		0.20		0.40		0.20		0.20
	Asian		34.70		38.90		33.80		40.60		33.60
	White		24.90		20.70		21.40		13.30		26.00
	International ethnicity		11.70		13.10		15.50		15.20		10.00
	Unknown ethnicity/race		2.60		4.00		2.30		1.80		3.50

Table 2 (*continued*)

		Merced		Riverside		San Diego		Santa Barbara		Santa Cruz	
		n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Freshman	Total freshman applications	27,793		52,677		118,383		105,631		61,805	
	CA resident applications	24,848	89.40	45,339	86.07	76,398	64.53	71,220	67.42	49,204	79.61
	CA resident enrollments	2,397	99.46	4,987	95.85	5,199	68.92	3,678	75.09	3,804	90.85
	Nonresident domestic applications	1,122	4.04	2,495	4.74	20,852	17.61	16,852	15.95	6,385	10.33
	Nonresident domestic enrollment	5	0.21	51	0.98	1,235	16.37	566	11.56	230	5.49
	International applications	1,823	6.56	4,843	9.19	21,133	17.85	17,559	16.62	6,216	10.06
	International enrollments	8	0.33	165	3.17	1,109	14.7	654	13.35	153	3.65
	Total freshman enrollments	2,410		5,203		7,543		4,898		4,187	
Transfer	Total transfer applications	4,962		14,740		22,492		20,573		13,237	
	CA resident applications	4,452	89.72	13,135	89.11	18,564	82.54	17,389	84.52	11,816	89.26
	CA resident enrollments	262	97.76	1,941	94.41	2,868	79.80	1,876	89.25	1,658	12.53
	Nonresident domestic applications	86	1.73	258	1.75	564	2.51	424	2.06	308	2.33
	Nonresident domestic enrollment	0	0	9	0.44	47	1.31	22	1.05	7	0.41
	International applications	424	8.65	1,347	9.14	3,364	14.96	2,760	13.42	1,113	8.41
	International enrollments	6	2.24	106	5.16	679	18.89	204	9.71	63	3.65
	Total transfer enrollments	268		2,056		3,594		2,102		1,728	
Admit Stats	Freshman admit rate	87.60%		65.80%		34.30%		29.20%		58.80%	
	Freshman admit GPA range	3.39-4.00		3.7-4.13		4.07-4.29		4.10-4.29		3.81-4.20	
	Transfer admit rate	62.00%		63.00%		54.00%		49.00%		58.00%	
	Transfer admit GPA range	3.11-3.69		3.11-3.73		3.48-3.91		3.55-3.91		3.12-3.76	
Total Enrollment (new & continuing)	Total enrollment	8,321	*%*	22,868	*%*	33,343	*%*	23,091	*%*	17,864	*%*
	Female		51.60		52.20		50.30		55.00		45.70
	Male		47.00		45.90		47.80		43.00		49.80
	African American/Black		7.00		5.70		3.00		3.80		4.70
	Hispanic/Latinx		55.20		39.00		20.90		24.60		26.70
	American Indian		0.30		0.20		0.40		0.60		0.60
	Pacific Islander/Native Hawaiian		0.40		0.20		0.20		0.20		0.30
	Asian		21.30		38.40		37.90		25.40		28.60
	White		8.10		11.30		19.00		31.80		31.40
	International ethnicity		6.00		3.30		16.10		11.00		5.70
	Unknown ethnicity/race		1.60		1.90		2.50		2.70		1.80

Note. Adapted from Undergraduate Admissions Summary, by University of California, 2021 (https://www.universityofcalifornia.edu/about-us/information-center/admissions-residency-and-ethnicity); and Fall Enrollment at a glance, University of California, 2022 (https://www.universityofcalifornia.edu/about-us/information-center/fall-enrollment-glance undergraduate new enrollments).

*Systemwide application numbers are unduplicated whereas students may have applied to multiple campuses.

Table 3 – Comparison of Fall 2020 and 2021 University of California Undergraduate Applications and Enrollment

	Los Angeles 2020				Santa Barbara 2020			
	Freshmen	Admit %	Transfer	Admit %	Freshmen	Admit %	Transfer	Admit %
Total Applications	108,870		25,961		90,961		18,981	
CA Applicants	67,942		21,333		63,325		15,734	
Total Enrolled	6,386	5.87	3,788	14.59	4,847	5.33	2,453	12.92
CA Enrolled	4,789	7.05	3,170	14.86	4,014	6.34	2,219	14.10
	2021				**2021**			
	Freshmen	Admit %	Transfer	Admit %	Freshmen	Admit %	Transfer	Admit %
Total Applications	139,482		28,464		105,631		20,573	
CA Applicants	84,182		23,446		71,220		17,389	
Total Enrolled	6,584	4.70	3,434	12.06	4,898	4.64	2,102	10.22
CA Enrolled	4,545	5.40	2,944	12.56	3,678	5.16	1,876	10.79

	Santa Cruz 2020				Davis 2020			
	Freshman	Admit %	Transfer	Admit %	Freshman	Admit %	Transfer	Admit %
Total Applications	55,068		12,572		76,903		17,907	
CA Applicants	43,927		11,051		54,635		14,845	
Total Enrolled	4,193	7.61	1,641	13.05	6,144	7.99	3,031	16.93
CA Enrolled	3,929	8.94	1,572	14.22	4,790	8.77	2,766	18.63
	2021				**2021**			
	Freshman	Admit %	Transfer	Admit %	Freshman	Admit %	Transfer	Admit %
Total Applications	61,805		13,237		87,136		18,765	
CA Applicants	49,204		11,816		60,984		15,924	
Total Enrolled	4,187	6.77	1,728	13.05	7,482	8.59	2,817	15.01
CA Enrolled	3,804	7.73	1,658	14.03	5,562	9.12	2,666	16.74

Note. Table 3 shows that while freshmen and transfer applications increased substantially from fall 2020 to 2021, four UC campuses enrolled less California resident students. Adapted from Undergraduate Admissions Summary, by University of California, 2021 (https://www.universityofcalifornia.edu/about-us/information-center/admissions-residency-and-ethnicity).

Where do these denied students go to pursue their academic and career goals? Most end up at a CCC, while the rest attend California private institutions (both nonprofit and for-profit), or out-of-state institutions, where they are likely to incur more student debt. A growing number of California high school graduates are attending college in other states. Between 2004 and 2017, the number of California high school graduates attending out-of-state institutions more than doubled to 36,100 (Jackson et al., 2019). Almost half of these students who leave California attend public universities; top choices include the University of Oregon, Northern Arizona University, University of Nevada-Reno, and University of Colorado-Boulder, each of which enrolled more than 800 California high school graduates in 2017 (Jackson et al., 2019). Students who attend college out of state may not return and contribute to the California economy.

California Master Plan for Higher Education Consequences. Despite the prevalent myth that higher education is an institution of equal opportunity, one need only look at the CMPHE as a prime example of social stratification. On the surface, the intention of the CMPHE appears to increase access to higher education to a larger, more diverse student population, but in actuality, it further perpetuates social stratification. Higher education social stratification can be outlined in three components: (a) institutional processes that define and determine the desired deliverable or outcome (e.g., transferring to a 4-year institution), (b) rules that regulate how these deliverables are distributed across various positions (or occupations), and (c) mobility mechanisms that link individuals to specific occupations, thereby creating unequal control over specific resources (Boland et al., 2018).

As California has become more diverse (refer to Figure 9), the CMPHE has further perpetuated social stratification by regulating access to more privileged positions, which often require a baccalaureate degree (or higher). UC is at the top of this structure, enrolling and

graduating more students from middle- and upper-class backgrounds who are considered more prestigious and well-received by employers or graduate programs (e.g., medical and law schools), which therefore maintains or improves their social class (Geiser & Atkinson, 2012). As shown in Table 2, UC Merced and UC Riverside, which enroll the highest percentage of historically minoritized populations (i.e., Latinx/Hispanic, African American/Black, Native American, Pacific Islander), and enroll higher percentages of students with financial need (90% and 86% respectively), are also the least competitive campuses with the highest admit rates for both freshman (87.6% and 65.8% respectively) and transfer applicants (65% and 63% respectively). As such, UC Merced and UC Riverside also have lower GPA thresholds of admitted freshman and transfer students (UC, 2022e). In 2021, UC Los Angeles, UC Berkeley, and UC Irvine had the lowest admission rates for both freshman and transfer applicants (refer to Table 2).

Figure 9 – California population by race/ethnicity 1970-2020
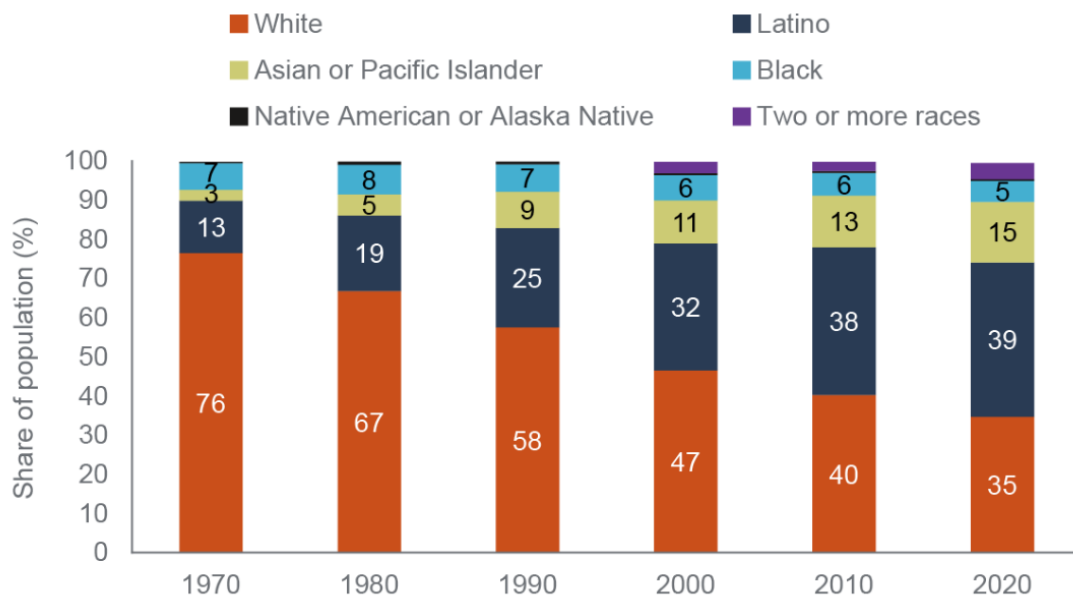
Note. Census Bureau decennial counts. From *California's Population*, by H. Johnson, E. McGhee, & M. C. Mejia, 2022, California's population is diverse, para. 1 (https://www.ppic.org/publication/californias-population/).

CSU falls closely behind the UC as a social mobility filter by only providing one third of applicants an opportunity for upward social mobility but does so with significantly lower completion rates than UC. While UC first-term freshmen (FTF) 4- and 6-year baccalaureate completion rates were 71% and 86% in 2021 (UC, 2021a), at CSU they were significantly lower for FTF with a 4-year graduation rate of 33% and 6-year graduation rate of 63% (CSU, 2021b). Similarly, 2- and 4-year graduation rates for transfer students were higher at UC (61% and 89% respectively) compared with CSU (44% and 80% respectively).

In 2019, of the 2.75 million California public higher education students, three quarters were enrolled in a CCC, evidence that most college students in California are capitalizing on the open access and affordability provided by CCCs. Enrollment data (see Figure 10) clearly illuminates that a larger percentage of historically marginalized students attend CCC compared to CSU and UC counterparts. Also, for students whose total family income was less than $30,000, half started at a CCC while only 20% and 10% of these students began their higher education career at a CSU or UC respectively (Jackson et al., 2019). Conversely, only 4% of students whose total family income was greater than $75,000 started at a CCC, while 58% of the same student population started their higher education career at a UC or CSU and the remaining 33% attended a private nonprofit institution (Jackson et al., 2019).

Figure 10 – College destination varies by race/ethnicity

COLLEGE-GOING RATES BY RACE/ETHNICITY AND INSTITUTION FOR 2017-18 CALIFORNIA HIGH SCHOOL COMPLETERS

Legend: ■ UC ■ CSU ■ CCC ■ CA Private 2- and 4-Year ■ Out of State

Race/Ethnicity	UC	CSU	CCC	CA Private 2- and 4-Year	Out of State
STATE AVERAGE	7.4%	12.6%	37.3%	3.3%	7.1%
NOT REPORTED	5.4%	10.2%	34.6%	3.0%	7.6%
TWO OR MORE RACES	8.5%	11.7%	35.3%	4.8%	12.0%
WHITE	6.6%	11.3%	36.5%	4.3%	14.2%
PACIFIC ISLANDER	3.9%	10.2%	39.0%	2.6%	5.8%
HISPANIC OR LATINO	4.4%	12.4%	39.1%	2.4%	2.9%
FILIPINO	9.6%	18.5%	39.3%	3.7%	3.6%
ASIAN	25.9%	17.1%	30.3%	5.4%	9.4%
AIAN*	3.6%	6.5%	33.1%	2.7%	6.8%
AFRICAN AMERICAN	3.7%	10.6%	37.4%	2.9%	8.2%

Note. From 2017-18 college-going rate for California high school students, DataQuest, California Department of Education (https://dq.cde.ca.gov/DataQuest/DQCensus/CGRLoc.aspx?agglevel=state&cds=00&year=2017-18).
*American Indian and Alaskan Native (AIAN)

Although more than three quarters of entering CCC students intend to transfer to obtain a baccalaureate degree (H. Johnson & Mejia, 2020), only 5% of CCC baccalaureate degree-seeking students earn one within 6 years (McClenney et al., 2019). This is the result of only 4% of CCC students transferring successfully within 2 years, 18% transferring within 4 years, and 28% transferring within 6 years (H. Johnson & Mejia, 2020).These low completion rates can be linked to several systemic factors including (a) institutional and state bureaucracy, (b) impacted 4-year institutions, (c) complex vertical transfer articulation and admission processes, (d) less opportunities for grant funding, (e) less per-student state funding compared to UC and CSU, (f) all while tasked with educating more than two thirds of California college students, who are more diverse (i.e., less academically prepared, first generation, low income, full-time working adults, etc.) and therefore require more robust support services to succeed in school (Boland et al., 2018; Working Group on Community College Financial Resources, 2019).

Figure 11 illustrates research findings that across the state of California, total cost of attendance (i.e., tuition, fees, textbooks, transportation, food, housing, etc.) after financial aid is accounted for (net cost) is higher at CCC than CSU and/or UC (Szabo-Kubitz & Fung, 2020). In fact, in seven of nine regions, CCC net cost of attendance is higher than both UC and CSU (Szabo-Kubitz & Fung, 2020). These findings are reflective of low-income students who rely on federal, state, and institutional aid. Many CCC students, who invariably have the greatest financial need, are inhibited by lower cost-of-living financial aid allocations for CCC students (refer to Table 4). The Working Group on Community College Financial Resources (2019) recognized this and noted, "Researchers have long recognized that disadvantaged students need more resources to succeed than those who have enjoyed many advantages, and yet state budgets have starved community colleges of the funds they need to succeed" (p. 3).

Figure 11 – UC, CSU, and CCC total cost of attendance for low-income students across California's nine regions
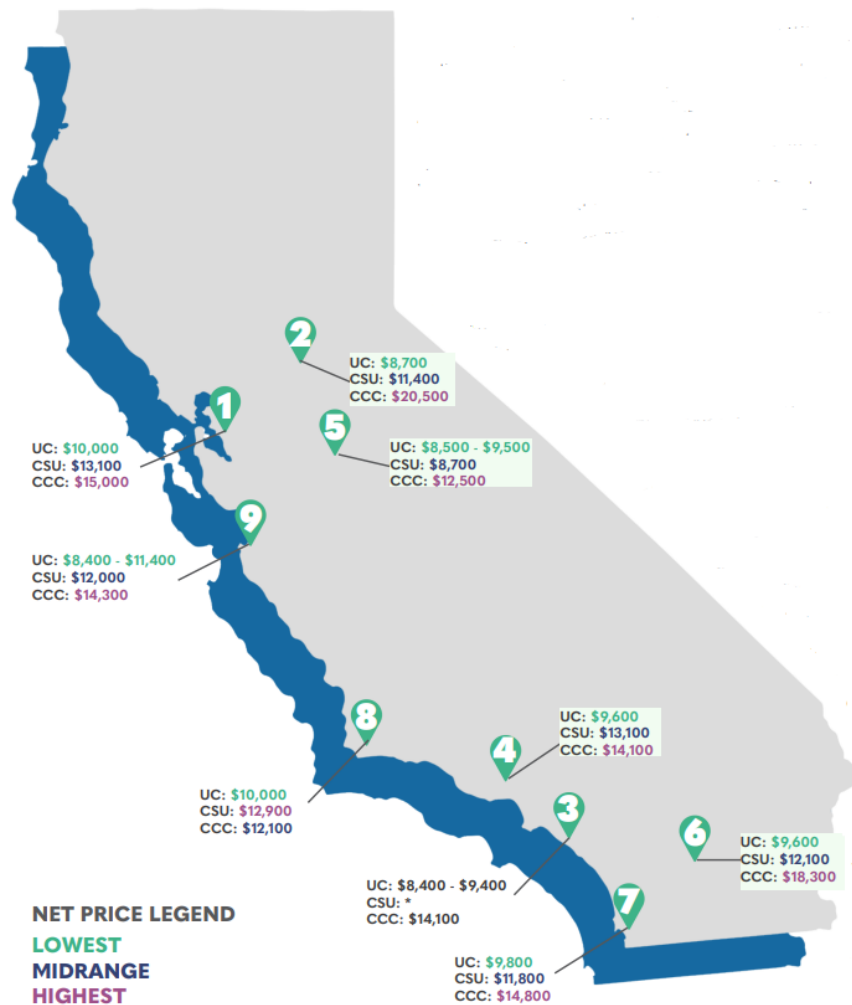
NET PRICE LEGEND
LOWEST
MIDRANGE
HIGHEST

Region 2: UC: $8,700 / CSU: $11,400 / CCC: $20,500

Region 1: UC: $10,000 / CSU: $13,100 / CCC: $15,000

Region 5: UC: $8,500 - $9,500 / CSU: $8,700 / CCC: $12,500

Region 9: UC: $8,400 - $11,400 / CSU: $12,000 / CCC: $14,300

Region 4: UC: $9,600 / CSU: $13,100 / CCC: $14,100

Region 8: UC: $10,000 / CSU: $12,900 / CCC: $12,100

Region 3: UC: $8,400 - $9,400 / CSU: * / CCC: $14,100

Region 6: UC: $9,600 / CSU: $12,100 / CCC: $18,300

Region 7: UC: $9,800 / CSU: $11,800 / CCC: $14,800

Note. From *What College Costs for Low-Income Californians: 2020*, by L. Szabo-Kubutz & A. Fung, 2020, Institute for College Access & Success (https://ticas.org/wp-content/uploads/2020/08/what-college-costs-for-low-income-californians-2020.pdf).

Table 4 – Grant aid per undergraduate student at California public colleges and universities, 2018-19

2018-19	Segment	Institutional grants	State grants	Pell grants	Total
Per Pell	UC	$11,100	$11,400	$5,100	$27,600
	CSU	$ 3,100	$ 3,600	$4,600	$11,300
	CCC	$ 1,800	$ 700	$3,600	$ 6,000
Per FTE	UC	$ 4,300	$ 4,400	$2,000	$10,600
	CSU	$ 2,000	$ 2,400	$3,100	$ 7,400
	CCC	$ 700	$ 300	$1,400	$ 2,300

Note. Grant aid per student are intended to show relative aid availability for students at different colleges, not suggest average amounts of aid received by any given student. Calculations based on data from the California Community Colleges Chancellor's Office's Data Mart, California Department of Finance, the California Student Aid Commission, the California State university Office of the Chancellor, the Federal Student Aid Data Center, the Legislative Analyst's Office, and the University of California Office of the President. For community colleges, institutional aid includes the community College Promise Grant and other forms of fee waivers such as the AB 19 California Promise; state aid includes Cal Grants and Student Success Completion Grants. For CSU and UC, institutional aid includes the State University Grant and University Grant; state aid includes Cal Grants and Middle Class Scholarships. All figures are rounded to the nearest $100. Totals may not add up to sum of individual categories due to rounding. Figures do not include the additional access award available to Cal Grant recipients with dependent children, estimated to serve 29,000 students, or the additional 15,250 competitive Cal Grants, both of which were first included in the 2019-20 state budget agreement. From *What college costs for low-income Californians: 2020*, by L. Szabo-Kubutz & A. Fung, 2020, Institute for College Access & Success (https://ticas.org/wp-content/uploads/2020/08/what-college-costs-for-low-income-californians-2020.pdf).

While many correlate California's low college completion rates to state budget cuts and state demographic shifts, Geiser and Atkinson (2012) argued that enrollment rationing policies at the UC and CSU systems have had the biggest impact. As the percentage of UC- and CSU-eligible high school graduates continues to increase, more academically prepared students are forced to enroll in CCCs because of a lack of space at UC and CSU. Currently all but one UC campus and seven CSU campuses do not have room to admit all eligible applicants (H. Johnson, 2020). Geiser and Atkinson (2012) suggested that "structural problems require structural solutions" (p. 44), and therefore policymakers must seriously consider restructuring the CMPHE to discourage the inequality that the three-tiered system has been producing as the demand for a more highly educated workforce continues to rise. As the Campaign for College Opportunity (2021) *Shut Out* report poignantly stated,

> While California's vision for higher education in the 1960s was revolutionary for its time, our state is in dire need of a new roadmap and vision that intentionally ensures greater access to the University of California (UC), and the California State University (CSU) for eligible students, intentionally closes the racial/ethnic gaps that persist in access and success in higher education, and ensures every Californian, regardless of race/ethnicity, zip code, or income, is given a true, equitable opportunity to go to college and cross the graduation stage. (p. 2)

The outdated CMPHE limits access to baccalaureate-level education and therefore, jeopardizes California's standing in the global economy (Campaign for College Opportunity, 2021).

Financing California Higher Education. The 1947 Truman Commission Report cited that "of all the states, California boasted the highest ever per capita expenditure on students" (Thelin, 2019, p. 287). Historian Thelin (2019) suggested that "the period between 1945 and 1970 represented the peak of investment in mass higher education in California. The state benefited from a fortuitous combination of timing, demographic change, prosperity, and education innovation" (p. 286). Fast forward to 2010, California state funding per FTES dropped to number 23 in the nation, and slowly increased to number 10 as of 2020 (National Science Board, 2020). Even though employers demand more highly skilled employees with a college education, over the last 4 decades California has invested less per student (adjusted for inflation) at its public universities and community colleges (Cook et al., 2017, 2019). In 1976-77, higher education spending accounted for 18% of the state budget, but by 2018–19 it had fallen to 11% (Cook et al., 2019), with greatest declines at UC and CSU:

> Funding per full-time equivalent student has declined most dramatically at UC, from slightly more than $26,000 to $13,632. State funding per CSU student has fallen from $11,678 per student in 1976-77 to $9,387 in 2018-19. (Cook et al., 2019, p. 1)

Research illuminates that while state higher education funding usually decreases during economic downturns, funding is not always restored during financial upturns (Newfield, 2016). During the 2008 recession, as state higher education budget allocations decreased, UC and CSU

were forced to increase tuition to make up for the lost revenue (Cook et al., 2017, 2019). The Legislative Analyst's Office predicted that a 1% increase in tuition raises net revenue by about $15 million at UC and $10 million at CSU (Petek, 2019). However, because the state legislature controls CCC tuition, CCCs cannot leverage this revenue stream like UC and CSU counterparts (Boland et al., 2018; Zumeta & Frankle, 2007).

Researchers have long criticized the funding structure of the CMPHE, where students who end up at the highly resourced UC have better outcomes than neo-traditional students who end up at an under resourced CCCs (Hansen & Weisbrod, 1969). Figure 12 shows that CCCs receive significantly less per-student funding when compared to CSU and UC counterparts and Figure 10 clearly identifies that a larger percentage of Asian, Filipino, and White students attend UC compared to American Indian/Alaskan Native, African American, Pacific Islander, or Hispanic/Latino students.

In 2016-17 California general fund expenditures per community college student were 50% less than expenditures per UC student and 22% less than CSU student expenditures (Cook et al., 2017). As reflected in Figure 12, funding disparities decreased in 2017-18, with UC receiving 37% more per student than CCCs and CSU only receiving 9% more than CCCs (Cook et al., 2019). Before Proposition 98 passed in 1988, guaranteeing that 40% of the general fund be spent on K-14 schools, CCCs received significantly less funding per student. However, only 11% of Proposition 98 funds are received by CCCs (Boland et al., 2018).

Figure 12 – UC, CSU, and CCC state funding per FTES, 1965-66 through 2017-18

Sources: California Postsecondary Education Commission and the California Department of Finance. *Note*. The General Fund expenditure per full-time equivalent student shown in this chart are adjusted for inflation and do not include federal American Recovery and Reinvestment Act funds used to replace state higher education funding from 2008 to 2011. From *Investing in Public Higher Education,* by K. Cook et al., 2019, Public Policy Institute of California.

The very premise that community colleges were founded on is disparaging to the students it serves, and since community colleges are open to all students, it, in turn, is disparaging to all (Brint & Karabel, 1989). From their inception, CCCs have acted as the filter through which only the most determined, most apt, most resourceful students (and very likely students who could have been granted direct admission to a UC or CSU from high school), must now successfully navigate the complexities of articulation and transfer admission to be accepted into a UC or CSU. Newfield (2016) does not suggest that increasing public funding will simultaneously and equally increase graduation rates, but he does suggest that more money needs to be directed to lower-funded institutions where most neo-traditional students attend. CCCs ultimately serve the

largest share of historically marginalized, low-income, and first-generation students, and therefore, they deserve the largest percentage of funding (Newfield, 2016).

Labor Market Demand Versus Baccalaureate-Level Education Access

While the intent of the CMPHE was to increase baccalaureate access to more students, the three-tiered, stratified system cannot meet the demands of college students, and further perpetuates social stratification as systemwide inequities and roadblocks further marginalize the majority. Neave (1989) perceptively observed the following:

> The issue of access stands in a state of tension between the demands of the individual, the needs of the community, the perceived demands of the economy and, finally, what the community is prepared to invest in order to meet the former or to fulfil the latter. (p. 1)

The demand for a more highly educated workforce has increased significantly since 1960, when the CMPHE was first implemented; yet in 60 years no changes in the percentages of enrollment rationing for the UC and CSU have occurred (Jackson et al., 2019). Geiser and Atkinson (2012) reiterated the importance of funding enrollment growth, stating,

> Initiatives that fall short of structural reform, such as efforts to improve the traditional transfer function, have failed to improve baccalaureate attainment in the past and are unlikely to do so in the future without additional capacity at the 4-year level. (p. 44)

H. Johnson (2016) predicted that to meet the projected 1.1 million shortfall of degree earners, California will need to award 4 million baccalaureate degrees between the 2015-16 and 2029-30 academic years. The CSU will need to award nearly 500,000 additional baccalaureate degrees over current projections by admitting 66,000 additional freshman and 178,000 additional transfer students, as well as increasing 4-year graduation rates from 19% to 40% by 2025 and 6-year graduation rates from 57% to 70% by 2025, which will add an additional 237,000 baccalaureate degrees (H. Johnson et al., 2017). The UC will need to award 251,000 additional baccalaureate degrees over current projections by admitting 120,000 additional freshman and

61,000 transfer students, as well as increase 4-year graduation rates which hover around 60%, to award an additional 70,000 baccalaureate degrees (H. Johnson et al., 2017). Other California nonprofit and for-profit institutions will also need to increase admission and graduation rates to add an additional 139,000 baccalaureate degree holders to the California economy over current projections (H. Johnson, 2016). Even amidst a global pandemic, recent UC and CSU data are promising, "During the last two years, record numbers of students continued to earn bachelor's degrees" reducing the baccalaureate degree gap first outlined by PPIC in 2016 (H. Johnson et al, 2022). This is imperative, especially with Governor Newsom's new charge for 70% of California adults to hold a college degree or credential by 2030 (Burke & Smith, 2022a; H. Johnson, Cook, et al., 2022).

The Intersection of Higher Education and Complexity Theory

Popularized with the publishing of *Chaos: Making a New Science* (Gleick, 1987), a comprehensive body of research and literature for complexity theory followed. Established in 1984, The Santa Fe Institute, of which Gleick was a primary researcher, was the epicenter of complexity science research. As complexity science research proved germane, so too did its reach into a variety of disciplines. In 1996, the American Educational Research Association formed a Chaos and Complexity Theory Special Interest Group. Complexity science research emerged for a variety of disciplines, including higher education policy (Shoup & Studer, 2010), leadership (Uhl-Bien & Marion, 2008; Wheatley, 1997), educational leadership (Birnbaum, 1988; Morrison, 2002), and other social sciences (Kiel & Elliot, 1997). Further journals dedicated to complexity science emerged, including *Complicity: An International Journal of Complexity and Education* in 1997 and *Emergence: Complexity and Organization* in 2004.

Evolution can be credited as the catalyst of complex systems, creating constant fluidity, no matter what system. Whether at the cellular level or social level, "organisms constantly adapt to each other through evolution, thereby organizing themselves into an exquisitely tuned ecosystem" (Waldrop, 1992, p. 11). Complexity theory postulates that all things compulsorily self-organize; no matter how simple or complex the initial conditions are, a more complex system will emerge (Waldrop, 1992). Self-organization depends on self-reinforcement, "a tendency for small effects to become magnified when conditions are right, instead of dying away" (Waldrop, 1992, p. 34). The concept of self-organizing can be applied to any system, including education (Shoup & Studer, 2010).

As history has been known to repeat itself, the past therefore serves as initial conditions for future equilibrium. The values that shape the past are going to be the values that shape the future. History provides a view into the future, advising people what they can anticipate. Events are linear (time bound), but themes are circular as they repeat themselves. While U.S. higher education began as an intellectual and moral endeavor for a few elite, the CAS eventually institutionalized other features as the system grew exponentially. This growth spurred new competing logics, such as community colleges (Koos, 1925), college athletics (Carnegie Foundation for the Advancement of Teaching, 1938), and many other noninstructional services (American Council on Education [ACE], 1937). With the expansion from elite to universal access, U.S. higher education continually expanded to meet the desires of diverse prospective students. As Labaree (2017) perceptively observed,

> It's the people's college, the party school, the scholar's retreat, the economic engine, the public park, the tower of learning, the training ground, the bulwark of privilege, the cultural repository, the public entertainer, the gateway to the middle class, the colosseum, and the conservatory. (p. 196)

U.S. public higher education provides multiple on and off ramps for students to pursue different academic and nonacademic experiences. U.S. public higher education is undoubtedly a CAS as it balances multiple and competing demands and expectations from a diverse set of students and external constituents.

As is common for CAS, environmental forces prompt self-correction. When reviewing the historical outline of U.S. higher education, several self-corrections can be noted as well as unintended consequences that further perpetuated the need for additional self-correction. A broad review illuminates three distinct ideologies. First, the establishment of the first colonial colleges through the turn of the 1940s, U.S. higher education was largely considered a private good, appropriate for only the elite (5% of college-age population; Thelin, 2019). Second, as the United States shifted from a primarily agrarian society toward industrial innovation, U.S. higher education academics expanded to include specialized vocational topics, not just classic liberal arts education. The industrial revolution paired with the Morrill Land Grant Acts of 1862 and 1890 increased the demand for higher education and diversity of students. After World War I, U.S. higher education shifted from elite to mass access, serving 15% of the college-age population (Trow, 1973; Thelin, 2019). Third, several momentous events converged in the 1940s that spurred a shift from mass to universal access (15%-49% of college-age population)— winning World War II, passage of the GI bill, and the Truman Commission Report (Trow, 1973; Thelin, 2019). These coupled with the civil rights movement of the 1960s resulted a new ideology—that higher education was no longer a privilege only reserved for the affluent, but that it is now a right. As U.S. higher education has shifted from elite to universal access, two competing logics were at play: access versus quality. As the number and type of U.S. higher

education institutions grew, so too did diversity of student population with varying abilities, interests, and motivations pressuring the system to be many things to many people.

With the shift to universal access and increased enrollment, universities could no longer meet demand and therefore the rise of community colleges ensued (President's Commission on Higher Education, 1947; Thelin, 2019). With these shifts in access, parallel changes in funding were required, including increased state and federal funding and student financial aid. From the mid-1940s through 1990, higher education was considered a public good and was predominately funded as such. The shift from public good to private good commenced in the 1990s with substantial tuition increases and major financial aid reform. The 1992 Reauthorization of the Higher Education Act introduced new loan opportunities regardless of student's need (i.e., unsubsidized loans) and increased loan limits. The result was a shift in Pell Grant support. In the early 1990s, for each dollar in student loans, $2 were allocated to grants. In the late 1990s, this shifted to a one-to-one grant-to-loan ratio (Ma & Pender, 2021; Newfield, 2016). Further, in 1990-91 higher education tuition increases were comparable to inflation (refer to Figure 13). But just 9 years (2001-02) after federal financial aid reform, tuition at public 4-year universities increased 1.3 times the rate of inflation (refer to Figure 13). Fast forward to the Great Recession, in 2009-10, tuition increased 2 times the rate of inflation (refer to Figure 13). Presently, public higher education tuition is 2.58 times the rate of inflation (refer to Figure 13).

Figure 13 – Inflation-adjusted tuition and fees 1991-92 to 2021-22
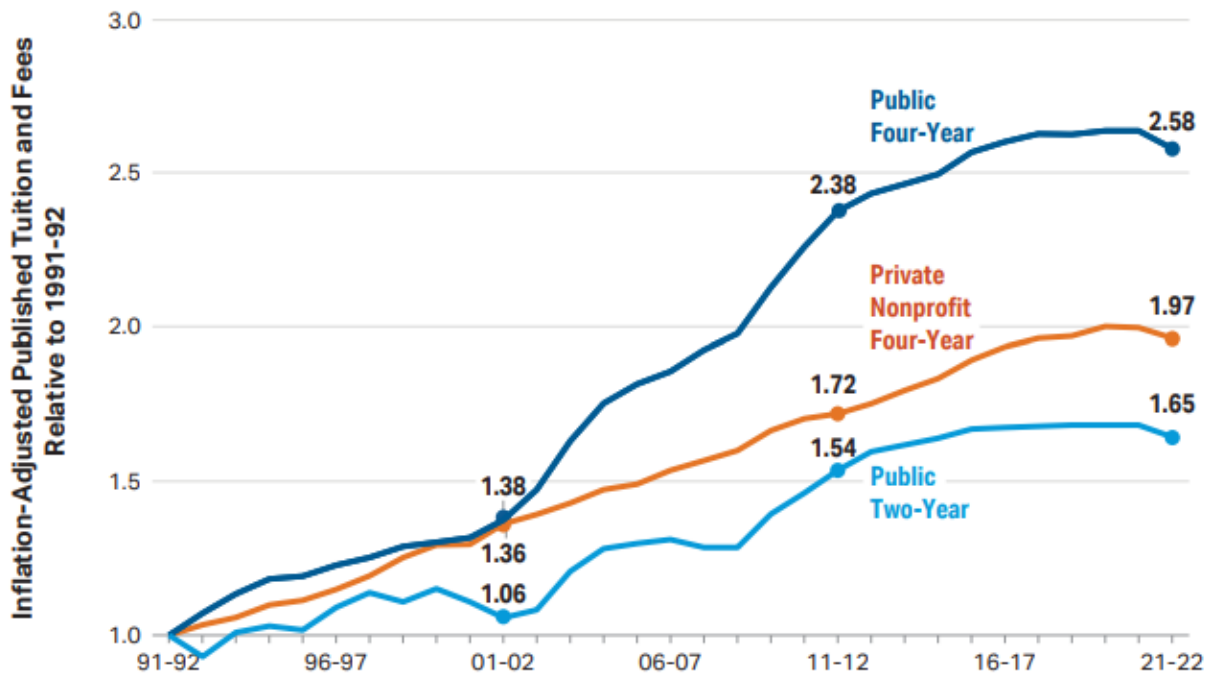
Note. Figure 13 shows published tuition and fees by sector, adjusted for inflation, relative to 1991-92 published prices. For example, a value of 2.58 indicated that the tuition and fee price in the public four-year sector in 2021-22 is 2.58 times as high as it was in 1991-92, after adjusting for increases in the Consumer Price Index. Average tuition and fee prices reflect in-distric charges for public two-year institutions and in-state charges for public four-year institutions. Source: College Board, Annual Survey of Colleges; NCES, IPEDS Fall Enrollment data. From *Trends in College Pricing and Student Aid 2021*, by J. Ma & M. Pender, July 23, 2020, College Board (https://research.collegeboard.org/media/pdf/trends-college-pricing-student-aid-2021.pdf).

Burgeoning student loan debt was highly publicized in mainstream media between 2010-2012, as "Student loan debt exceeded credit card debt in 2010, auto loan debt in 2011 and reached the $1 trillion mark in 2012" (Kantrowitz, 2020, para. 2). The spotlight on student loan debt came at a time when America was still recouping from the 2008 recession, and many college graduates found entering the workforce difficult. This resulted in an ideology shift—many Americans questioned the value of a college degree. Increasing higher education costs for both schools and students coupled with decreased state and federal funding resulted in a shift away from U.S. higher education being considered a public good, more so to it being viewed as a private good, subject to market forces.

Right to Fail Ideology

The act of failing has been popularized and idealized in a variety of contexts, from *Failing Forward: Turning Mistakes into Stepping Stones for Success* (Maxwell, 2000) to Carol Dweck's (2006) theory of growth mindset. "Right to fail" ideology has permeated numerous sectors, including management, medicine, conservation, and education (Chambers et al., 2022; Sullivan, 1963; Zinsser, 1923). It was popularized in the 1960s alongside the U.S. cultural shift from collectivism to individualism (a result of urban centers surrounded by factory work). A central concept of the right to fail ideology is that more can be learned through failure than success (Zinsser, 1970) and failing is inherent to our evolution (Zinsser, 2008). On the topic of U.S. higher education, Sullivan (1963) noted, "In too many areas of American higher education today, conservatism has won; and it has won by denying, both to leaders and to the groups led, the right to fail" (p. 191), citing the rigid lecture, notetaking, exam and grading structure, with little room provided for open discussion or student creativity.

In the field of social work, Soyer (1963) drew a correlation between self-determination and clients "right to fail," stating,

> Only through life itself can the client really try, test, and temper his abilities, his fantasies, and his goals. … This is how all people grow, how they gain a more mature view of themselves and the world. They succeed and fail and through success and failure they learn. (p. 77)

Similarly, Sullivan (1963) spoke of the equilibrium leaders must manage—encouraging change (creativity) while maintaining the status quo (conservatism), correlating a leader's right to fail with creativity. Sullivan noted, "Conservatism applies precedents, and fixed criteria, and standard controls; it is comfortable only with what is known, and proven, and measurable in terms of cost and predetermined curves of predictability" (p. 191).

Right to fail ideology has pervaded U.S. higher education since the first colonial colleges (Jones & Assalone, 2016; Roueche & Roueche, 1994; Thelin, 2019; Zinsser, 1923). Critics suggest it is a flawed ideology that is rooted in privilege and does not account for underprivileged students that lack access to social, financial, and human capital to mitigate failure (Hadden, 2000; Roueche & Roueche, 1994; Wood, 2012). A paradigm shift has slowly permeated academia with the publishing of *Becoming a Student-Ready College: A New Culture of Leadership for Student Success* (McNair et al., 2016). Lead author Dr. Tia Brown McNair is the vice president in the Office of Diversity, Equity, and Student Success and Executive Director for the Truth, Racial Healing, and Transformation (TRHT) Campus Centers at the American Association of Colleges and Universities (AAC&U) in Washington, DC. This book spurred a flurry of speaking engagements for Dr. McNair and served as a launchpad for "student-ready" empirical studies and an intrusive examination of how societal, systemic, and institutional factors impede student success. McNair et al. (2016) elaborated on the paradigm shift from blaming students for not being "college-ready" to challenging institutions to take responsibility for becoming student-ready:

> Represents a paradigm shift that reframes the conversations about student success from a mindset focused on student deficits and limitations to approaches that focus on students' assets, institutional responsibility, and personal accountability that can lead to sustainable change. However, without clearly defined action steps, "becoming a student-ready college" will quickly become one of the many catch phrases in higher education that everyone agrees with, but no one really understands. (p. 71)

Further, McNair et al. proposed that, "At student-ready colleges, all services and activities— from admissions to the business office, to the classroom, and even to campus security—are intentionally designed to facilitate students' progressive advancement toward college completion and positive post-college outcomes" (p. 4).

Higher Education Reform

Historical accounts of U.S. education reveal pendulum swings in education policy priorities. This is the result of the CAS attempting to maintain equilibrium. Equilibrium cannot exist without change. Some shifts (i.e., initiatives or mandates) are small corrections, while others are larger. The shift from college-ready to student-ready ideology is a prime example of a strange attractor (competing value) at play in higher education. Additional examples are evident in the multitude of California higher education reforms and initiatives. The recent influx of social justice and equity research in higher education has lent itself to revaluating long-standing rigid norms and practices. As such, the focus has shifted on how institutions create unnecessary roadblocks to student success and completion, both inside and outside of the classroom. Three prime examples of this shift are documented in the following paragraphs:

Placement Procedures

At the macro level, the shift from college-ready to student-ready ideology and practices are evident in a variety of recent systemwide mandates and state legislation. One such example of a higher education pendulum swing relates to placement practices. Since the 19th century, "a paying student, however weak his or her secondary-school preparation, was unlikely to be turned away" (Thelin, 2019, p. 96) as colleges and universities relied heavily on student tuition to keep their doors open. Therefore, as historian Thelin (2019) documented,

> When applicants were woefully underprepared for college-level studies, colleges and universities responded by providing auxiliary courses. Hence most American colleges dedicated a sizable proportion of their curricula to preparatory or remedial courses that would (for a price) help bring students up to par for "college work." (p. 96)

The practice of assessing student's knowledge upon entry and then sorting them into various levels of remedial coursework have been long-standing practice across the United States, including in California. Newly admitted students would be required to take a placement exam to

determine their starting point for math and English (college-level or remedial). However, within California, placement practices across the 73 CCC districts was applied differently, some using outside vendors for their exam while others utilized home-grown exams derived from faculty. Further, rules surrounding placement polices varied drastically, as some CCCs allowed students to repeat the exam if they were not satisfied with their placement, while others held strict waiting periods to re-test.

On August 7, 2017, CSU Executive Order 1110 was issued, which in effect shifted placement processes from ECP exams to multiple measures. utilizing admission eligibility index scores and high school GPA to place students into their first-term math and English courses (CSU, 2018). Further, the order in effect banned offering noncredit remedial courses, which were replaced with corequisite support courses to ensure student persistence and completion rates were not impacted by several layers of remedial coursework. For students who would have previously assessed into a remedial math or English course, they would now start at the college-level course but have a corequisite support course to assist in their course success.

Two months later, Assembly Bill 705 (AB 705) was signed by the governor in effect mandating that CCCs follow suit, to

> maximize the probability that a student will enter and complete transfer-level coursework in English and math within a one-year timeframe and use, in the placement of students into English and math courses, one or more of the following: high school coursework, high school grades, and high school grade point average. (California Community College Chancellor's Office, 2018, para. 1)

This legislation in effect shifted student placement from a comprehensive exam to a placement survey where students would document the highest math and English courses completed in high school, their grades in these courses, and their overall high school GPA. This shift was the result of empirical research, which found that grades and GPA are better predictors of student success

than a one-time exam (Fong & Melguizo, 2017). Further, research found too many students were being directed to remedial course pathways that were derailing their retention and success (Cooper et. al., 2017; Fong & Melguizo, 2017; Martorell & McFarlin, 2011; Melguizo et al., 2008, 2014, 2016; Ngo & Melguizo, 2016; Scott-Clayton & Rodriguez, 2015). Research indicates that the sooner a student completes college-level English and math, the more likely they will be to graduate successfully. Some CCCs changed their placement policies in 2018-19, but all were required to comply by 2019-20. Even though implementation of AB 705 was rolling out during the COVID-19 pandemic, positive outcomes were made in fall 2019 with almost all CCC students enrolled in a college-level English course, and more than three quarters enrolled in a transfer-level math course (Mejia et al., 2021). Further, passing rates more than doubled for both math and English (40% and 61% respectively) when compared to fall 2015 (Mejia et al., 2021).

Even with these positive gains, implementation of AB 705 for math was more challenging, and many students across the state were still starting in remedial math courses. As research found that Black and Latinx students were more likely to be placed into remedial math, advocacy for equity continued. On May 25, 2022, the California State Assembly unanimously approved Assembly Bill 1705 (AB 1705) which is an extension of AB 705 (Weissman, 2022). If approved by the State Senate, AB 1705 would legislate additional directives and restrictions for equitable placement, including prohibiting students from repeating a math or English course they already passed in high school, requiring schools to provide data to support their decision to place a student into a remedial course, and that low performance on one measure can be offset by a higher performance on another measure. For example, if a student has a low cumulative high school GPA but received an A in precalculus, the latter should trump the former.

The passage of AB 705 was legislators' recognition of the growing body of research

proving that remedial coursework often does more harm than good and often slows students'

academic trajectories (Cooper et al., 2017; Fong & Melguizo, 2017; Martorell & McFarlin, 2011;

Melguizo et al., 2008, 2014, 2016; Ngo & Melguizo, 2016; Scott-Clayton & Rodriguez, 2015).

AB 705 was a landmark legislation, a larger pendulum shift, the result of competing values (rigid

bureaucratic placement practices vs. equitable multiple measures placement). And after initial

review of AB 705 results, advocacy groups and policymakers decided implementation of said

legislation did not yield the results they wanted; therefore, to seek equilibrium (equity in

placement for all students) a follow-up legislation was drafted (AB 1705). Shoup and Studer

(2010) proposed that "as the system matures, it grows in the direction of the feedback; hence the

system emerges towards what it considers important" (p. 18). This follow-up effort is the result

of cybernetics (feedback) from the new policy an example of self-organized criticality. A CAS

interaction with its complex environment is referred to as self-organized criticality. Timing is

often the most important variable affecting the scale at which change occurs.

Standardized Exams as Admission Criteria

Another example of the shift from college-ready to student-ready ideology and practices

is evident in the pendulum shift from standardized test scores as a required undergraduate

admission criterion, to the surge of "test-optional" and "test-blind" practices. In fall 2019, prior

to the COVID-19 pandemic, nearly half of baccalaureate-granting U.S. schools had

undergraduate test-optional admission policies (FairTest, 2021). From spring 2020 to 2022, the

number of institutions shifting to test-optional and test-blind practices grew exponentially from

1,070 to 1,830 (FairTest, 2021, 2022). Critics of standardized tests like the SAT and ACT argue

that some test questions include inherent biases that favor more privileged test takers. Further,

historically marginalized students that do not have the financial resources or access to various

test-prep materials and courses are inherently disadvantaged from the moment they step into the

testing room.

In May of 2020, the UC Board of Regents voted unanimously to remove SAT/ACT as a

required admission criterion, stating,

> Today's decision marks the culmination of a two-year, research-based effort by UC to evaluate the value and use of standardized tests in admissions. That process began in July 2018 when President Napolitano asked the Academic Senate to evaluate whether the University and its students are best served by current standardized testing practices. The Academic Senate convened the Standardized Testing Task Force in January 2019, and their findings were finalized and presented to the president in April 2020. (UC, 2020c, para. 2)

This was a landmark pendulum shift as UC had required SAT scores as admission criteria since

1968 ("A (Mostly) Brief History of the SAT and ACT," n.d.). The impetus for including SAT as

a requirement was the result of concerns that too many California students were meeting UC

eligibility, which they postulated was the result of high school grade inflation ("A (Mostly) Brief

History of the SAT and ACT," n.d.). This time period also correlated with young baby boomers

reaching college age.

Less than one year after the UC Academic Senate Standardized Testing Task Force

formed, a lawsuit was brought against UC by the Compton Unified School District, four

students, and six community organizations, alleging that use of standardized tests for admission

criterion violates state equal protection guarantees and civil rights laws. One of the lawsuit

plaintiffs stated,

> Rather than fulfilling its vision as an 'engine of opportunity for all Californians' and creating a level playing field in which all students are evaluated based on individual merit, the UC requires all applicants to subject themselves to SAT and ACT tests that are demonstrably discriminatory against the State's least privileged students, the very students who would most benefit from higher education. (Watanabe, 2019, para. 3)

Beginning with the fall 2021 admission cycle, UC enacted a major pendulum shift toward becoming test-blind not only for admission purposes but also for scholarship consideration. It did not take long for the standardized pendulum to swing further as CSU shortly after followed UCs lead. First, in April 2020 (CSU, 2020), CSU temporarily suspended use of standardized tests for admission criterion for the 2021-22 and 2022-23 application cycles, due to "hardships caused by the COVID-19 pandemic and to mitigate harmful impacts for prospective applicants" (CSU, 2022, para. 4). Prior to the COVID-19 pandemic, like UC, there were ongoing discussions regarding the role of standardized testing in the admissions process also occurring at CSU (2022). In January 2022, the CSU Admission Advisory Council recommended the permanent discontinuation of standardized test scores for undergraduate admissions (CSU, 2022). The CSU Admission Advisory Council cited concerns of equity and fairness and found that the SAT and ACT tests provide negligible additional value to the CSU admission process (CSU, 2022). As a result of the CSU Admission Advisory Council recommendation, on March 22, 2022, the CSU Board of Trustees unanimously voted to amend Title 5 of the California Code of Regulations to remove SAT and ACT standardized tests from undergraduate admissions (CSU, 2022).

While many anticipated that the removal of SAT/ACT scores would increase access to historically marginalized students who could not afford the test prep of their wealthier peers, others predicted that this major shift away from standardized testing would in effect increase admissions selectivity for these students, as admission decisions would rely more so on GPA and class standing metrics. So, while the intention behind the removal of SAT/ACT scores for undergraduate admission decisions was to increase access, time may show that this policy in effect decreased access for historically marginalized students as the number of UC applications were at an all-time high for the two admission cycles after becoming test blind. If time and data

reveal this, then a pendulum swing may start toward an alternative method of increasing equity in admission decisions.

Housekeeping Barriers

At the micro institutional level, the shift from college-ready to student-ready ideology and practices can be found in a variety of several higher education practices, which the researcher refers to as "housekeeping barriers." One such example is the customary practice for many colleges and universities to drop students for nonpayment within 2 to 7 days of registering for their classes. Over the last 5 years, several CCCs have relaxed their payment rules, some of which allow students several months to pay their balance allowing more time for the financial aid process to finalize while others now offer students incremental payment plans to remain in good standing and not be dropped immediately from their courses.

Another prime example of a housekeeping barrier was withholding access to student records and transcripts for students who owed their school a remainder balance, in some cases a very nominal amount. This practice negatively impacted students who needed access to their records to transfer coursework to another institution to continue their education (and therefore employment prospects). This practice also negatively impacted students who needed proof of coursework, certificate, or degree for potential employment. If a student cannot access their transcript for gainful employment, then how can they be expected to have the financial means to repay their debt to school? When the media became aware of such practices across the state, the Department of Justice launched an investigation. A pendulum shift for this longstanding rigid practice changed for California when Governor Newsom signed Assembly Bill 1313 (AB 1313) on October 4, 2019, which states that

> Schools and colleges have threatened to withhold transcripts from students as a debt
> collection tactic. The practice can cause severe hardship by preventing students from

pursuing educational and career opportunities, and it is therefore unfair and contrary to public policy. Moreover, the practice is counterproductive as it may further delay the payment of the debt by creating obstacles to student employment. (Section 1788.91(a))

AB 1313 goes on to state that no CCC, CSU, or UC shall:

(a) Refuse to provide a transcript for a current or former student on the grounds that the student owes a debt.
(b) Condition the provision of a transcript on the payment of a debt, other than a fee charged to provide the transcript.
(c) Charge a higher fee for obtaining a transcript or provide less favorable treatment of a transcript request because a student owes a debt.
(d) Use transcript issuance as a tool for debt collection. (Section 1788.93(a)-(d))

A third example of a housekeeping barrier that impedes student success is requiring students to petition or apply for their credential or diploma instead of automating this process. While these are only three examples of various housekeeping barriers, many more pervade rigid bureaucratic higher education institutions.

Higher Education Leadership Practices

Historians have well-documented the evolving role and responsibilities of U.S. higher education presidents (Thelin, 2019). With the first colonial colleges, presidents were academic leaders devoted to the pursuit of advancing knowledge. With small student populations they were heavily involved in assessing applicant acumen and making admission decisions as "entrance examinations were usually administered verbally by the college president" (Thelin, 2019, p. 18). As student populations grew and became more diverse, so too did personnel needs. The advent of student personnel and loco parentis expanded presidential responsibilities, requiring increased managerial oversight. Presidential time and focus shifted from academics to triaging various and competing logics and growing external demands, the biggest of which related to securing necessary funding (i.e., philanthropy, athletics, federal research partnerships, etc.) to keep the doors open (Thelin, 2019). However, these new funding streams came with strings attached and placed more external demands on presidents.

As higher education institutions grew in size, programs, and amenities, the need for financial resources also increased. Historian Thelin (2019) poignantly stated, "The paper chase and the thrill of the hunt, whether for the charters, donors, or political allies, were the lifeblood of the colonial college presidents who endured and whose institutions thrived" (p. 34). As state and federal funding were prone to vacillations and were never enough, presidents had not only to engage in the political sphere to advocate for necessary resources but also to impart the value of higher education as a ticket to the American middle class in hopes of deriving more donor support and paying students (Thelin, 2019). Thelin noted the necessity for presidents to publicize the value of higher education:

> Whether the institution was a state university, a women's college, a church-related campus, or a Black college, the support of the immediate local community as a source of both students and donors was essential. Each college continually experimented with different ways of attracting enrollments and gifts. (p. 107)

As time progressed, philanthropy solicitation became a dominant responsibility for college and university presidents.

In addition to an increased need for philanthropic support, as U.S. higher education evolved so too did its relationship with government entities for the purpose of research. Historian Thelin (2019) noted that "the universities' effectiveness during the crises of World War II had an enduring legacy - namely, the success of academic cooperation in large-scale applied research projects provided the rationale for future partnerships between the federal government and universities" (p. 259). Thelin documented the growth of research partnerships in the post-World War II era:

> In essence the federal government became a research patron and contractor - not only through the new National Science Foundation (created in 1950) and the enhanced National Institutes of Health, but also through research and development initiatives undertaken in its disparate departments and agencies. The Departments of Defense,

Energy, Agriculture, Transportation, and Health increasingly issued requests for proposals from academic experts to compete for specific research assignments. (p. 272)

A multitude of research partnerships were formed, utilizing academic prowess, faculty, and college and university facilities. However, the influx of research money came with additional external oversight, as Thelin (2019) elaborated:

Harvard and other universities had to face the fact that once the federal government's foundations and agencies became major funding sources in the sciences, it was virtually impossible for any university to maintain a leadership record in those selected fields without federal research funding. The situation sent shock waves through the academic community because it meant that an external federal agency had the power to alter campus governance and institutional mission, including essential tenets of academic freedom. For once, the principal headache facing university presidents was not a shortage of money but rather the political problems it created by new monies and their uneven distribution. (p. 274)

As external oversight increased, college and university administrative teams also grew. Vice presidents and large administrative teams handled oversight of academics and other daily operating procedures, while presidents juggled external relationships.

The surge of higher education enrollments that ensued after the passage of the 1944 GI Bill prompted a major change in the accountability structure (Thelin, 2019). While President Truman clearly outlined his support for higher education in the 1947 President's Commission on Higher Education report, he did not believe the government should be tasked with direct oversight (Thelin, 2019). Thelin (2019) shared, "The happy resolution was that the federal government agreed to accept as a proxy the institutional evaluations that colleges and universities themselves rendered as part of voluntary accreditation associations" (p. 265). This was the birth of regional accreditation processes that degree-granting institutions would participate in if they wanted to be eligible for federal funds (Thelin, 2019). Thelin postulated, "Control, not inquiry, was the consequence of the foundation-based structural innovation" (p. 242).

Presidential responsibilities shifted as priorities and access evolved and grew

exponentially. At the site level, presidents juggled competing missions and "keeping a balance

between the advancement of knowledge, professional education, general education, and the

demands of student life" (Kerr, 2001, p. 85). With the shift from elite to universal access,

presidential relationships and accountability to external constituents also compounded. Clark

Kerr, an original author of the 1960 CMPHE served as UC Berkeley's first chancellor and later

as the 25th UC President. Kerr (2001) observed, "As the institution becomes larger,

administration becomes more formalized and separated as a distinct function; as the institution

becomes more complex, the role of administration becomes more central in integrating it"

(p. 21). Kerr spoke on the requisite of higher education executive leaders being all things to all

constituents, elaborating,

> The university president in the United States is expected to be a friend to the students, a
> colleague of the faculty, a good fellow with the alumni, a sound administrator with the
> trustees, a good speaker with the public, and astute bargainer with the foundations and the
> federal agencies, a politician with the state legislature, a friend of industry, labor, and
> agriculture, a persuasive diplomat with donors, a champion of education generally, a
> supporter of the professions (particularly law and medicine), a spokesman to the press, a
> scholar in his own right, a public servant at the state and national levels, a devotee of
> opera and football equally, a decent human being, a good husband and father, an active
> member of the church. (p. 22)

Kerr (2001) added,

> He should be firm, yet gentle; sensitive to others, insensitive to himself; look to the past
> and the future, yet be firmly planted in the present; both visionary and sound; affable, yet
> reflective; know the value of a dollar and realize that ideas cannot be bought; inspiring in
> his visions yet cautious in what he does; a man of principle yet able to make a deal; a
> man with broad perspective who will follow the details conscientiously; a good American
> but ready to criticize the status quo fearlessly; a seeker of truth where the truth may not
> hurt too much; a source of public policy pronouncements when they do not reflect on his
> own institution. (p. 23)

Similar challenges have been documented for community college executive leaders as the

UC Davis Wheelhouse Center for Community College Leadership and Research (Kurlander et

al., 2021) shared that CCC CEOs must "set vision and strategy, attend to both internal and external constituencies and manage complex teams to achieve their goals. And they must do all of it in political and fiscal contexts that aren't always predictable" (p. 2). Further, in the 2020 *CEO Tenure and Retention Study*, the Community College League of California noted, "The range of leadership skills required for community colleges is vast: student services, academics, finances, marketing, fundraising, and advocacy to name just a few" (Mize, 2020, p. 17).

Higher education is riddled with numerous competing logics (e.g., access vs. quality; affordability vs. quality; research vs. teaching; liberal arts vs. workforce training; academics vs. co-curricular activities; public vs. private gains, etc.). With so many competing logics it is impossible for one to dominate and therefore legislative priorities get co-opted. Higher education executive leaders are called to implement various and competing missions and legislative priorities at their institution. How should executive leaders bridge and buffer their core technology to triage competing initiatives amidst a rigid institutionalized highly regulated environment?

In the 21st century, leaders "struggle to avoid drowning in complexity that continually threatens to pull them in over their heads" (Bolman & Deal, 2017, p. 7). As a result, leadership and management practices are continually evolving, with a new bestseller book almost every month. And after reading a few such books, a leader will quickly realize that there is no magic wand, or one best leadership practice, that will work in every situation. Effective leaders have a firm grasp not only on leadership theory and best practices, but they also understand the complementary nature of organizational, institutional, and complexity theories, which provide essential perspectives and skills to optimize the performance of their organizations. Shoup (2016) poignantly stated,

A lack of understanding of organizational and institutional realities results in the false impression that leaders are omnipotent – able to accomplish whatever they want. A lack of understanding of established leadership theories and practices results in managers and administrators resigning to the status quo, creating the false impression that leaders are relatively powerless – making minimal contribution to the outcomes. (p. 169)

Bolman and Deal (2017) masterfully took decades of organizational and institutional research and theories and modernized them by repackaging them into four easily understandable frames of reference. They define a "frame" as "a set of ideas and assumptions - that you carry in your head to help you understand and negotiate a particular territory" (p. 12).

Bolman and Deal's (2017) four frames—structural, human relations, political, and symbolic—provide context and understanding of how and why organizations function the way they do. The structural frame aligns with organizational rational theories. The human relations frame aligns with institutional natural theories. And the political and symbolic frames reflect truths found in institutional open theories. Shoup (2016) poignantly suggested that "as a result of the different organizational frames, effective leaders are analysts and architects (structural), catalysts and servants (human relations), advocates and negotiators (political), and prophets and poets (symbolic)" (p. 174). Effective leaders must learn to practice multiframe thinking to effectively lead complex organizations and institutions (Bolman & Deal, 2017). Bolman and Deal (2017) suggested that "leaders fail when they take too narrow a view. Unless they can think flexibly and see organizations from multiple angles, they will be unable to deal with the full range of issues" (p. 421).

Instability is ubiquitous in nature and across organizations, and the human factor unequivocally complicates situations more as predicting human behavior is difficult (Buchanan, 2000). Buchanan (2000) suggested that "people decide on their own whether influences will propagate or not" (p. 163). Bolman and Deal (2017) perceptively observed that "organizations

are filled with people who have divergent interpretations of what is and should be happening. Each version contains a glimmer of truth, but each is a product of the prejudices and blind spots of its maker" (p. 21). Effective leaders must learn to practice multiframe thinking to effectively lead complex organizations and institutions (Bolman & Deal, 2017). Bolman and Deal (2017) suggested, "Learning multiple perspectives, or frames, is a defense against thrashing around without a clue about what you are doing or why" p. 23). Reframing can increase performance of constituents. While there are many natural and biological events that humans cannot predict or presume to prevent (e.g., earthquakes, wildfires, tsunamis, etc.), humans have the gift of higher order thinking and therefore are in control of how they frame problems.

When examined individually, leadership, organizational and institutional theories do not explain or predict the behavior of a collective constituency (Shoup, 2016). Complexity theory provides a comprehensive frame to better understand the dynamic nature of collectives by integrating insights from all three theories (i.e., leadership, organizational, and institutional theories). Complexity theorists bring to light the hidden architecture common to all complex adaptive systems, which includes homeostasis and change (equilibrium), strange attractors (non-negotiables), fractals (similarities across scales), cybernetics (feedback), emergence (thriving and growing), sensitive dependence, and self-organized criticality (Shoup, 2016). Complexity theory calls leaders to balance (homeostasis) competing demands and expectations (strange attractors) and implement midcourse corrections (change) based on feedback (cybernetics; Shoup, 2016). Factors that influence the level of complexity include the number of internal and external demands, the size and number of layers, and the amount and speed of feedback. Additionally, leaders must understand that changes may have disproportionate effects (sensitive dependence)

and that their actions (i.e., vision) will be mirrored throughout the collective (fractals; Shoup, 2016).

Strong organizations and strong leaders are goal driven. The collective performs better when strategies, goals, and policies are clear, but not excessive, and when jobs are well defined, but not constricting. However, higher education institutions are complex entities operating within unique environmental circumstances and enmeshed ecosystems in which business, government, and the public all intertwine. As such, higher education executive leaders must continually adapt their modus operandi to meet the specific motivational needs of internal and external constituents. Caldicott (2014) perceptively observed,

> One distinguishing difference between leaders that succeed at driving collaboration and innovation versus those that fail is their ability to grasp complexity. This skill set involves framing difficult concepts quickly, synthesizing data in a way that drives new insight, and building teams that can generate future scenarios different from the world they see today. (para. 10)

The environmental demands (micro and macro cultures) and formal (shared governance) and informal networks make it difficult to be a higher education executive leader.

Organizational change and effectiveness depend on a leader's human resource and political acumen. Machiavelli (1532) and modern leadership theorists alike (Kouzes & Posner, 2017; Sample, 2002) encourage leaders to model desired behaviors by clearly communicating the organization's mission, vision, and strategic goals. Doing so provides a common language, and can increase teamwork, commitment, and enthusiasm. Buchanan (2000) poignantly stated, "No individual lives or thinks in a vacuum; rather, every person is profoundly influenced by others" (p. 222). Leaders must also navigate formal (i.e., policies and procedures) and informal (i.e., attitudes, emotions, thoughts, relationships, and coalitions) narratives. Leaders must normalize ambiguity by judiciously attending to competing demands. On one hand, leaders must

be task-driven—controlling order, standardization, and maximizing efficiency. On the other hand, leaders must be relationship-conscious—allowing autonomy and flexibility, which in turn increases creativity, innovation, loyalty, and therefore, production. James March, professor emeritus at Stanford, symbolized the complex nature of leadership when he referred to leaders as plumbers (i.e., they deal with organizational structure via the structural frame) and poets (i.e., they shape the narrative via the human resource, political and symbolic frames). Leaders must practice discernment as they prioritize managing the narrative as opposed to changing the structure. It is a function of timing for a leader to know they have built enough trust with constituents to begin implementing change. Leaders will rarely have all constituents in agreement, but they must have the majority critical mass.

Review of Methodology Literature

Researchers must ensure equitable selection of participants and that participants selected have appropriate knowledge of the topic being studied (Creswell, 2013; Tracy, 2020). Furthermore, the grounded theory approach requires that researchers co-construct a theory of process, action, or interaction with participants who have experienced the process firsthand (Creswell, 2013; Strauss & Corbin, 1990). Purposeful sampling is best utilized "where particular settings, persons, or events are chosen deliberately in order to provide information that directly pertains to the study and cannot be collected well from other sources" (Allen, 2011, p. 48). Therefore, the researcher engaged in purposeful participant selection, with an intent to send email invitations to all current UC, CSU, and CCC CEOs., and all nine undergraduate granting UC chancellors (and/or their administrative assistants)

When human participants are involved, the researcher's first responsibility is to ensure the protection of their welfare and rights (Creswell, 2013; Tracy, 2020). This requires that the

researcher disclose up-front any potential risks (physical, mental, emotional) that they may encounter as a result of their participation. Therefore, the researcher provided a Consent to Participate (see Appendix A) prior to conducting any interviews or sending any online follow-up surveys. The Consent to Participate form outlined the general premise of the study, what would be required of the participant (Zoom interviews of approximately 30-60 min along with a follow-up online survey), and a list of any foreseeable risks to their participation (see Appendix A). The Consent to Participate form also documented all safety measures that would be employed to protect their anonymity, but included a disclaimer, that in an era of ever-increasing cyber-crimes, the researcher cannot guarantee with 100% certainty that there will be no breach of data as the result of a computer hacker.

A study is credible when the researcher is transparent and vulnerable, engaging in self-reflexivity (Tracy, 2020). It is imperative that the researcher take appropriate measures to reduce personal bias and not advance their own personal agenda. Creswell (2013) perceptively observed,

> Whether we are aware of it or not, we always bring certain beliefs and philosophical assumptions to our research. Sometimes these are deeply ingrained views about the types of problems we need to study, what research questions to ask, or how to go about gathering data. (p. 15)

Therefore, the researcher must be transparent about their personal strengths and shortcomings, and the limitations of their study. The researcher's work as a CCC counselor for the past 8 years led to the research topic of interest. The impetus of delving deep into California public higher education leaders' opinions was a result of the inequities and inefficiencies the researcher observed across California's three-tiered system. Tracy (2020) suggested that "the qualitative researcher in mind and body literally serves as a research instrument - absorbing, sifting through, and interpreting the world through observation, participation, and interviewing" (p. 3). In an

attempt to reduce researcher bias, the researcher engaged in bracketing, setting aside one's own personal perceptions, thoughts, and feelings, to be open to the emerging phenomenon. As an alumna of the CCC and current CCC counselor, it was imperative that the researcher acknowledge and attempt to bracket all preconceived ideas pertinent to the topic at hand. This was also the reason the researcher chose to approach the topic of study from the grounded theory approach.

To ensure analysis was driven by data collected rather than any preconceived notions, the researcher employed an inductive approach, common with traditional grounded theory frameworks. An inductive approach to data analysis means that the researcher does not begin with a predetermined set of codes, instead data are coded into categories that emerge naturally. The grounded theory approach is an iterative process, where data collection, analysis, and interpretation are interconnected and the researcher employs a constant comparative approach until saturation (no additional insight) is achieved (Creswell, 2103; Strauss & Corbin, 1990; Tracy, 2020). Grounded theory is also abductive as the researcher must examine all possible theories as they relate to the findings. In grounded theory studies, the "researcher engages in the process of moving analytic circles rather than using a fixed linear approach" (Creswell, 2013, p. 182). For this grounded theory study, the researcher engaged in inductive analysis by first developing several broad categories (open coding) before identifying a central phenomenon (axial coding) and attempting to interconnect the categories (selective coding) to develop a relevant model or theory depicted (Creswell, 2013; Strauss & Corbin, 1990).Qualitative researchers must be honest about their role as they "coproduce the narratives [they] presume to 'collect,' and [they] anticipate how the public and policymakers will receive, distort, and misread [their] data" (Fine et al., 2000, p. 127).

Summary of Literature

Historians have documented the evolution of U.S. higher education, which advanced chaotically. Institutional theory illuminates competing logics that have occurred throughout U.S. higher education (e.g., access vs. quality; affordability vs. quality; research vs. teaching; liberal arts vs. workforce training; academics vs. co-curricular activities; public vs. private gains, etc.). A complex system with competing logics cannot be all things to all people, and therefore U.S. higher education still has many losers, which is evidenced by the influx of equity initiatives and legislative mandates sweeping the nation. Historical accounts reveal that many of the competing logics that colonial college presidents were faced with still exist 385 years later, just on a magnified scale. Similar themes and challenges can be found throughout the four-century history of U.S. higher education (e.g., financial instability, external constituent influence, shifting priorities, competing logics, remedial education, etc.) as history is known to repeat itself. As time progressed, similar problems and reaction to said problems emerged, but responses slowly evolved. Complexity theory evaluates how dominant values are at play and shape pendulum swings in priorities, mission, and legislative initiatives. Complexity theory suggests that each new pendulum swing serves as a baseline for future iterations (sensitive dependence). These pendulum swings are the result of a growing, chaotic system attempting to maintain equilibrium.

College and university leaders would be prudent to study the evolution of U.S. higher education along with the social, political, and economic forces that were integral in its evolution. Complexity theory calls leaders to balance (homeostasis) competing demands and expectations (strange attractors) and implement midcourse corrections (change) based on feedback (cybernetics; Shoup, 2016; Shoup & Studer, 2010). As institutions grow, so too does hierarchical chain of command and rigid bureaucratic practices. Bureaucracy is a double-edged sword

because, while it decreases efficiency, it also provides constituents with a set of standard protocols and expectations to keep the organization moving forward. To mitigate this dichotomy amidst ever-changing environmental forces, leaders can utilize timely and consistent feedback loops (cybernetics). To keep order and chaos in balance, feedback loops should be bottom-up, which provides space for creativity and increases buy-in, loyalty, and trust between leaders and constituents (Waldrop, 1992). Further, it is more valuable to focus on the daily tasks and behaviors than the final result, because complex systems never truly settle (Waldrop, 1992).

Chapter 2 Summary

Understanding the complex, chaotic, and ever-changing ecosystem of public higher education, the purpose of this study was to capture insights from institutional leaders who are tasked with leading their school amidst said complexities. Their experience as higher education president/chancellor/CEO provides a unique lens from which to draw valuable insight, as they are enmeshed within the CAS of California public higher education. With the multitude of directions executive leaders are pulled, they may not be afforded the time or opportunity to voice their concerns and ideas for improvement. Participating in a qualitative semistructured interview allowed participants the time and space to elaborate on their lived experiences facilitating alignment of micro, meso, and macro relationships. This unique vantage point affords California public higher education executive leaders a unique opportunity to elaborate on the intricacies, complexities, and challenges associated with California student baccalaureate access and completion. This grounded theory study did not commence with a preexisting theory or framework to guide the research, but instead utilized the preceding literature review to provide the historical narrative of higher education issues. Chapter 3 provides a detailed review of the research methodology employed for this grounded theory study.

PART 2

Research Methodology & Procedures

Part 1 The Nature of the Research Problem	Chapter 1	Introduction/Problem Statement
	Chapter 2	Literature Review

Part 2 Research Methodology & Procedures	Chapter 3	Research Methodology

Part 3 Findings	Chapter 4	Research Results and Analysis

Part 4 Conclusion	Chapter 5	Discussion and Conclusions

CHAPTER 3: RESEARCH METHODOLOGY AND PROCEDURES

Chapter 3 Overview

Chapter 1 outlined California's demand for a more highly skilled, college-educated workforce (Bustillos et al., 2017; Campaign for College Opportunity, 2021; Cooper & Darla, 2018; H. Johnson, 2016; H. Johnson et al., 2015). Chapter 2 provided a history of the California higher education landscape, identifying how systemwide constraints contribute to labor market gaps. To address labor market gaps, there is a need to understand the structural ecosystem of California public higher education, and more specifically, barriers across all levels that reduce baccalaureate degree attainment. This qualitative grounded theory study sought to dig deeper into California higher education ecosystem intricacies by obtaining the perspective of executive leaders across all three segments (i.e., University of California (UC), California State University (CSU), California Community Colleges (CCC)). Chapter 3 details the research methodology utilized including participant selection, data collection, and data analysis procedures. Justification and methodological integrity for use of interpretive grounded theory are documented. Possible limitations that may result from the researcher's experience both as an alumna of two CCCs and one CSU as well as CCC counseling faculty are explored. Protocols taken to minimize human participant risk are also shared.

Purpose of the Study

Even though California is home to the nation's largest education systems, in 2015, the Public Policy Institute of California (PPIC) first projected a 1.1 million shortage of baccalaureate degree holders in California to meet job demands of 2030, with 40% of new jobs requiring baccalaureate degrees (Bustillos et al., 2017; Cooper et al., 2017, H. Johnson, 2016; H. Johnson et al., 2015). The purpose of this qualitative grounded theory study was to collect rich and thick

data from California higher education executive leaders who are, by the very nature of their work, enmeshed within the convoluted higher education ecosystem. Higher education CEOs are strategically positioned to provide a broad perspective of the multitude of issues at hand as they facilitate alignment between macro (federal, state, system offices), meso (regional industry and local city governance), and micro (institution and/or district) forces. As such, this study examined public higher education executive leaders' perceptions surrounding California student access to baccalaureate-level education as well as factors that may inhibit baccalaureate completion. Further, this study sought to examine how California public higher education executive leaders utilize their institutional core technology to bridge and buffer various macro (federal, state, system office), meso (regional industry), and micro (institution and/or district) forces. Lastly, this study sought understanding of public higher education CEOs role within the broader higher education landscape. This resulted in four guiding research questions.

Research Questions

1. How do California higher education leaders perceive the current climate of baccalaureate access and completion, and what are their suggestions for making improvements?

2. How do California higher education leaders perceive the current climate of transfer, and what are their suggestions for improving baccalaureate access to CCC transfer students?

3. How do California higher education leaders from each segment (i.e., UC, CSU, and CCC) hold similar/dissimilar perceptions regarding the current climate of baccalaureate access and completion, or the role that transfer plays?

4. How do California higher education leaders prioritize multiple and competing initiatives from various stakeholders (e.g., federal, state, UC Office of the President, CSU/CCC Chancellor's Office)?

The researcher conducted a qualitative grounded theory study of California public higher education executive leaders to reveal leadership practices and perceptions surrounding California student access to baccalaureate-level education. The purpose of this study was to develop a framework of public higher education leadership. Study findings were grounded in the complex realities described by research participants.

Research Methodology

Strauss and Corbin (1990) identified five reasons for engaging in qualitative research: (a) researcher's conviction based on prior experience, (b) nature of the research problem, (c) to unveil and understand a phenomenon which is unknown, (d) to uncover new perspectives of phenomena well-studied, and (e) to provide nuanced details note easily conveyed with quantitative research. A qualitative approach was deemed most appropriate to address the complexities embedded within the research questions of this study. Allen (2011) posited that "qualitative research is well suited to the political process and especially to the implementation process of public policy. It can contribute important insights into research that address the complexity and incremental nature of the political process" (p. 44). Due to the convoluted ecosystem of California public higher education, qualitative research was identified as the appropriate avenue for capturing professional insights from CEOs presently leading their organizations amidst said complexities. Furthermore, to move beyond simplistic descriptions of a few public higher education CEO experiences, this study sought saturation (Corbin & Strauss, 2015; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020) of themes to develop a public higher education leadership framework and thus employed a qualitative grounded theory approach.

With roots in sociology, grounded theory examines a process, action, or interaction grounded in the views of participants (Creswell, 2013; Creswell & Poth, 2018; Tracy, 2020). In a grounded theory study, saturation is achieved through iterative data collection and analysis (Creswell & Poth, 2018; Strauss & Corbin, 1990). Creswell (2013) suggested that "the overall tone of a grounded theory study is one of rigor and scientific credibility" (p. 123). Grounded theory is particularly useful in assessing processes such as the complexities found in baccalaureate pathways available to California students. While an abundance of empirical research can be found on student factors that impact higher education achievement, focusing solely on student factors employs a deficit mindset and fails to examine broader structural, societal, and systemic factors that contribute to the impedance of baccalaureate attainment.

Empirical research involving college and university presidents often takes the form of case studies or longitudinal studies that seek to document demographic trends, success stories, or lessons learned from failed presidencies (Nelson, 2009; Smerek, 2103; Trachtenberg et al., 2013). And while Romano (2020) conducted a grounded theory study to develop a framework to prepare aspiring college presidents, and Crow (2014) identified a misalignment between leadership priorities and actual resource allocations, neither provide an all-encompassing lens into the multitude of micro, meso, and macro system level factors at play. There is no established framework that identifies the structural, societal, and systemic factors that impede baccalaureate attainment and the role of college and university presidents within this framework. Higher education executive leaders by the nature of their job are enmeshed within the complex higher education ecosystem, which produces structural barriers. As such, the research sample of interest included public higher education executive leaders who could elaborate on the intricacies,

complexities, and challenges associated with California student access to baccalaureate-level education and degree completion.

Three grounded theory approaches were identified by Sebastian (2019): classical (Glaser, 1992), interpretive (Corbin & Strauss, 2015; Strauss & Corbin, 1990), and constructivist (Charmaz, 2014). The constructivist model emphasizes participants' feelings and opinions regarding the process being studied, while the classical design focuses on the latter. Also, the classical approach assumes that the researcher begins with no prior information or preconceived ideas about the research topic; the researcher is very detached. Oppositely, the constructivist and interpretive approaches acknowledge researcher familiarity, which is usually the impetus for selecting said topic. While the researcher has no prior executive leadership experience within California public higher education, they do have firsthand experiences as a former student in two different CCCs, one CSU, and three California private nonprofit institutions. Furthermore, the researcher has more than 8 years of work experience as a counselor/instructor across three different CCCs, and therefore, holds additional insight into various institutional and systemic practices that impede student progress toward baccalaureate degree completion. As such, the researcher was familiar with the research topic (Backman & Kyngas, 1999) and reviewed relevant literature to engage in constant comparison between interview transcripts and literature (Corbin & Strauss, 2015; Creswell & Guetterman, 2019; Creswell & Poth, 2018). Because of the researcher's familiarity with the research topic, the interpretive grounded theory model was deemed most appropriate.

This study ascribed to the Corbin and Strauss (2015) interpretive grounded theory model. Interpretive grounded theory methodology includes three distinct stages of data analysis: (a) inductive analysis by first developing several broad categories (open coding), (b) identifying

a central phenomenon (axial coding), and (c) identifying interconnections among categories (selective coding; Corbin & Strauss, 2015; Creswell, 2013; Strauss & Corbin, 1990). The ultimate purpose of this work was to develop a new theory or confirm an existing theory which oftentimes results in a visual model or framework (Corbin & Strauss, 2015; Creswell, 2013; Creswell & Guetterman, 2019; Creswell & Poth, 2018; Strauss & Corbin, 1990). A challenge when engaging in the grounded theory approach is the requirement that researchers set aside any preconceived notions to ensure substantive theory materializes from research data collected (Creswell & Poth, 2018).

Methodological Integrity

When compared to quantitative research, qualitative studies lack reproducibility, generalizability, and have an increased potential of researcher bias. Qualitative studies can be difficult to reproduce because of the uniqueness of the data set. And because much smaller samples are used in qualitative research, generalizing results to the greater population is difficult. Further, qualitative data collection and interpretation methods are more prone to researcher bias, as questions are open-ended and instead of numerical statistical analyses, researchers review data to pick out common themes or new phenomena. Also, respondent bias and reactivity serve as threats to qualitative study validity. A study can be reliable without being valid, but a study cannot be valid without being reliable. A reliable research study is a credible research study. Because of the subjective nature of qualitative inquiry, credibility is more often questioned and therefore a requisite to demonstrate credibility. Credibility refers to confidence in the study findings, and therefore, truth. To establish credibility (aka internal validity), the researcher must report an accurate and truthful depiction of a participant's lived experience, which can be

established through prolonged contact, triangulation, member checks, member reflections, peer review, and use of rich thick descriptions.

In this qualitative grounded theory study, the researcher engaged in triangulation, saturation, synthesized member checks (Birt et al., 2016), reflexivity, and use of rich thick descriptions (Corbin & Strauss, 2015; Creswell & Creswell, 2018; Creswell & Miller, 2000; Fusch & Ness, 2015; Strauss & Corbin 1990; Tracy, 2020). Triangulation is the process of confirming data consistency across a minimum of three different sources (Creswell & Creswell, 2018; Creswell & Miller, 2000; Tracy, 2020). However, while some purport that triangulation can only be achieved by three different data sources (e.g., students, faculty, and administrators), Denzin (1989) suggested that triangulation can be the result of identifying convergence across multiple participants within the same study. Triangulation was achieved by use of constant comparative analysis outlined above where codes and themes were consistently reviewed against one another throughout the entirety of the data analysis process. Further, data saturation (Corbin & Strauss, 2015; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020) was identified through constant comparative analysis (Aldiabat & LeNavenec, 2018; Babbie, 2017; Creswell & Creswell, 2018). As described by J. M. Morse (2004) saturation is "the phase of data analysis in which the researcher has continued sampling and analyzing data until no new data appear and all concepts of the theory are well developed" (p. 1123). More so, homogeneity of the research sample and resulting codes generated determine saturation (Aldiabat & Le Navenec, 2018).

In addition to seeking saturation of data, this qualitative grounded theory study included a large sample ($N = 47$). Therefore, in an effort to enhance validity of data collected from such a large sample, the researcher sent synthesized member check emails on December 6, 2021, with a summary of themes that emerged during open coding and provided participants the opportunity

to confirm or disconfirm data shared in the summary (Birt et al., 2016; Harvey, 2015). During member check emails, participants were also afforded the opportunity to provide additional commentary that may have arisen as a result of reading the collective response of their colleagues across the state. While member check emails were sent to all research participants (N = 47), only half (55.3%) engaged with a response. Twenty-six (UC n = 4/11, CSU n = 7/8, CCC n = 15/28) research participants responded to member check emails between December 7, 2021, and January 20, 2022. Of the 26 who engaged in a response, 53.8% agreed with the summary provided and did not chose to provide additional commentary, 42.3% agreed but wanted to add additional thoughts, and one participant did not agree and provided a detailed explanation as to why the summary provided was inadequate.

Credibility measures how accurately empirical results represent the perspectives of the research participants (Creswell & Miller, 2000; Schwandt, 1997). Creswell and Creswell (2018) suggested incorporating detailed quotes and excerpts from research participants as a means to increasing credibility. A plethora of rich thick quotes is provided in Chapter 4. Lastly, while bias is inherent in a grounded theory approach, the researcher's reflexivity and disclosure of potential biases incite mitigation.

Participants

The participant sample of interest was California public college and university CEOs and yielded a sample size of (N = 47) with representation across all three segments (UC n = 11, CSU n = 8, CCC n = 28). Table 5 highlights participant demographic information collected. Participants represented schools across that state, including 19 in Southern California, 12 in Central California, and 14 in Northern California (refer to Figure 14). Participant names and the schools in which they work remain confidential to protect public scrutiny or retaliation of

research participants. Of the 47 CEOs interviewed, 57.4% identified as male and 42.55% identified as female. The average length in their position as of the date of their interview (i.e., July 7 through August 30, 2021) was 4.5 years for UC research participants, 4.25 years for CSU presidents, and 4.42 years for CCC presidents. The collective higher education work experience of UC CEOs was 366 years or an average of 33.27 years for each research participant. The collective higher education work experience of CSU presidents was 274 years or an average of 34.2 for each research participant. More than one third of research participants had prior higher education work experience outside of California including Pennsylvania, New York, New Jersey, Connecticut, Massachusetts, Illinois, Indiana, Ohio, Michigan, Missouri, Wisconsin, South Dakota, Nebraska, Kansas, Texas, Nevada, Alaska, Washington, and Oregon. Furthermore, six (12.8%) research participants mentioned prior work experience at private nonprofit colleges and universities. Lastly, five (10.6%) research participants mentioned prior work experience in one of the three California public higher education sectors that they were not representing at the time of the interview (i.e., CCC, CSU, UC), one of whom had work experience in all three segments.

Table 5 – Demographic characteristics of participants

	CCC		CSU		UC		Full sample	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Gender								
Female	9	32.14	4	50	7	63.63	20	42.55
Male	19	67.85	4	50	4	36.36	27	57.45
CA location								
Northern	9	32.14	3	37.5	3*	18.18	15*	31.91
Central	7	25.00	3	37.5	2	18.18	12	25.50
Southern	12	42.85	2	25.0	6*	45.45	20*	42.55
Time in position	4.42 years		4.25 years		4.5 years			
Time in higher education	-		34.2 years		33.27 years			

Note. * represents that two different CEOs from the same UC campuses were included in the sample.

Figure 14 – Map of participant school affiliation by region
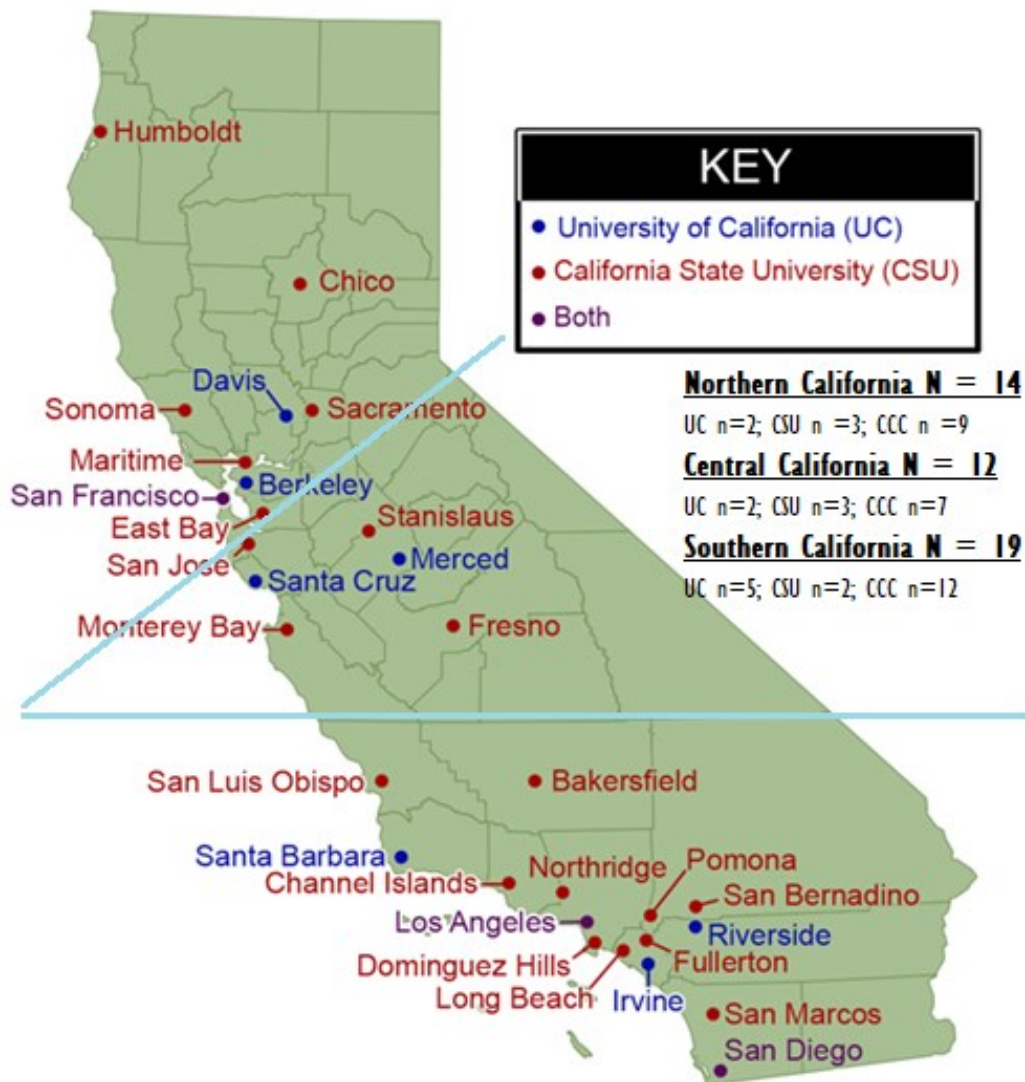
Research participants represented a diverse set of work experiences both inside and outside of academia. Prior higher education work experiences included those from all three areas—academic affairs, student services, and business services. A sampling of previous higher education roles served included professor, articulation officer, dean of counseling, director of career and counseling center, dean of planning and research, dean of enrollment, director of undergraduate admissions, director of university events, director of graduate studies, athletic

director, director of facilities, vice provost, vice president of instruction, vice president of student services, vice president of business services, and many more. Several research participants also held a variety of work experiences outside the realm of higher education, including attorney, physician, nurse, economist, budget and policy analyst, engineer, video assistant producer, marketing research director, and business owner.

Procedures

Participant Selection

The researcher engaged in purposeful participant selection with an intent to invite most CCC presidents, all 23 CSU presidents, and all nine undergraduate UC campus chancellors. A quantitative survey study that solicited participation from all CCC presidents yielded a 32% response rate (Crow, 2014), and therefore, the researcher anticipated a similar response rate (or lower) given the demands of the COVID-19 global pandemic and time commitment required for an interview. If total response rate was to exceed 35% ($n = 50$) then the researcher would have engaged in stratified random sampling and stopped interviewing once saturation of developing themes had been achieved.

While various listservs exist for college and university CEOs, the researcher did not have access to these. Therefore, the researcher relied solely on contact information made available publicly on college and university websites. While there are currently 116 CCCs, the researcher excluded Cal Bright, the fully online CCC that only provides noncredit courses and certificates. Also, to decrease potential researcher bias, the CCC where the researcher currently works was not invited to participate in the study. Therefore, the researcher attempted to develop a contact list for all remaining 114 CCC presidents; however, contact information for presidents was not readily made public across all CCC websites. The researcher did not attempt to make phone calls

to track down any of the missing contact information, so ($n = 4$) CCC presidents were never invited to participate in the study. Additionally, the researcher did not invite any CCC presidents that were serving in an interim or acting role ($n = 9$) or who had been in their position as CCC president for less than a year as of June 2021 ($n = 5$). Lastly, three CCC ($n = 3$) presidential roles were vacant as of June 2021, and therefore, these colleges were not represented in this study. This means the number of CCC presidents who were invited to participate in the study was reduced from 114 to 93.

Contact information was readily available for all 23 CSU presidents, and all were invited to participate in the study. Similarly, chancellors from the nine undergraduate UC campuses (UC San Francisco only offers graduate programs) were invited to participate in the study. However, the researcher anticipated that UC chancellors may not be afforded time to participate in the study. And since there are significantly less UC campuses than CSU and CCC, the researcher anticipated not having a response representative of the UC executive leader collective; therefore, the researcher also invited two additional high-level executives from each UC campus, such as vice chancellors, or provosts. Therefore, 27 UC executive leaders were invited to participate in the study.

Solicitation to participate occurred in June of 2021, with interviews to be conducted before fall terms commenced. It should be noted that during this summer, CEOs were dealing with an extra workload planning safe return to in-person instruction, labor negotiations to bring faculty and staff back on-campus, and developing COVID-19 vaccination protocols for students, faculty, and staff. Individual emails were sent to 147 prospective participants and their administrative assistants (when contact information was readily available). Email was the sole method utilized to invite prospective participants to engage in a 30-min interview via Zoom. The

email invitation (see Appendix B) to participate included a brief introduction to the research study, an attached informed consent, and confirmation of Institutional Review Board (IRB) approval (see Appendix C). The informed consent noted that their participation in the study was voluntary and that their name and school name would remain confidential. The study was predicted to have minimal risk to research participants, and therefore IRB approval was designated as exempt status. As such, a wet signature on the informed consent was not required of each participant. Instead, an email confirmation that they had read the attached informed consent and were willing to participate was used to document their consent. Additionally, at the beginning of each interview, the researcher reminded participants that their participation was voluntary, anonymous, and could be ended at any time. Participants were also asked permission to record their interview before any recordings commenced. Only one participant asked not to be recorded.

Upon receiving email confirmation that they wished to participate, follow-up emails were sent to prospective participants (UC n = 12, CSU n = 8, CCC n = 31) and/or their administrative assistants to schedule the interview. As a result of follow-up communication, 50 interviews (UC n = 11, CSU n = 8, CCC n = 31) were scheduled during July and August 2021. However, three CCC presidents asked to reschedule their interviews a few days prior. Because of the high response rate to participate, the researcher anticipated saturation and did not reschedule these three presidents for a later date. Therefore, the study included 47 research participants (UC n = 11, CSU n = 8, CCC n = 28). The response rate (34.97%) and participation rate (32.87%) for this study were strong amidst a global pandemic and the extra demands placed on CEOs who were planning safe returns to their respective campuses. There was representation from all nine undergraduate UC campuses, and two UC campuses included representation from two different

CEOs. It should be noted that participants self-selected to engage in this study, and therefore, a potential limitation is selection bias. The fact that this study received a similar response rate to Crow's (2014) is surprising given the extra demands placed on leaders amidst their safe return to campus planning. Perhaps this reflects their interest and concern for the research topic.

Data Collection

Data collected included online biographies, curriculum vitas, email communication, and semistructured interviews. Each consenting participant received an email containing a unique Zoom URL with embedded password to be utilized the day of their interview. Most interviews ($n = 45$) were conducted via Zoom virtual conferencing software and two were conducted via telephone. At the start of each interview, participants were reminded that their participation was voluntary and could be ended at any time. All participants were reminded that their name and school name would remain confidential throughout all phases of the research study. Participants were also asked permission to be recorded via Zoom for the purpose of researcher data analysis. All but one participant agreed to have their interview recorded. Zoom virtual conferencing software provides auto-generated transcripts which were used. Since the accuracy of the auto-generated transcripts was 80-85%, the researcher increased reliability of data by reviewing each auto-generated transcript, cross-checking it with the video recording to correct transcription errors and ensure the transcription accurately reflected participants' responses. The extra time spent correcting transcriptions provided the researcher with multiple data contact points. Additionally, throughout transcription correction the researcher noted participant tone, attitude, and body language. The average interview was 35 min.

To capture the lived experiences and perceptions of research participants, several open-ended questions were included during the semistructured interviews as well as two open-ended

questions during member check emails (Babbie, 2017; Creswell & Creswell, 2018). The use of semistructured interviews allowed the researcher to ask several broad questions, providing research participants the space to share their perceptions and lived experiences as a California community college or university CEO (Creswell & Creswell, 2017; Strauss & Corbin, 1990). The researcher engaged in memoing throughout the data collection process (Corbin & Strauss, 2015). This provided space for additional review and reflection of information shared after each interview. It also allowed the researcher to tailor interview questions during subsequent interviews, following up on topics and concepts introduced by prior participants (Corbin & Strauss, 2015). The objective was to collect breadth and depth of data until saturation (Corbin & Strauss, 2015; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020) was reached to develop a framework of public higher education leadership (Creswell & Poth, 2018).

Interviews began with two opening questions regarding their career as a higher education administrator (a) number of years in current position, and (b) position held directly prior. At this point several research participants voluntarily shared their total length of time working in higher education, and all participants were asked for this information during synthesized member check emails. Synthesized member check emails also asked participants to list all prior work experience, not exclusive of higher education, and some voluntarily spoke of nonacademic work experience throughout the course of their interview. Research participants were then asked to share their top three challenges as a California public higher education CEO, followed by strategies they employ to address the challenges cited. A question related to their prioritization processes for human and fiscal resources at their campus was also asked. Then interviews shifted to several questions related to California student access to baccalaureate-level education. Questions were informed by literature discussed in Chapter 2, and a sampling of questions can be

reviewed in Appendix D. Due to time constraints, and role served, not all participants were asked all questions listed in Appendix D.

In an effort to enhance validity of data collected, the researcher employed synthesized member checking, which Birt et al. (2016) proposed "addresses the co-constructed nature of knowledge by providing participants with the opportunity to engage with, and add to, interview and interpretation data, several months after their semistructured interview" (p. 2). Member checking techniques were first introduced by Lincoln and Guba (1985) to enhance rigor and credibility of qualitative research and are commonly employed in qualitative empirical studies. Member checking is the act of providing research participants the opportunity to review their interview transcripts and confirm that they reflect their lived experiences. Member checks include several methods including asking participants to review their entire interview transcript for accuracy, conducting an additional interview to confirm participants' initial thoughts, or conducting member check focus groups (Birt et al., 2016). B. Smith and McGannon (2018) suggested, "If the participant confirms the accuracy of the data and/or results, the findings can be deemed credible and the research is valid" (p. 6). Member reflections go one step further and ask participants to reflect on the results of the collective data and provide an opportunity for dissent (Tracy, 2020). Both member checks and member reflections are a method employed to reduce researcher bias and are instrumental in cocreating knowledge (Birt et al., 2016; Lincoln & Guba, 1985). It should be noted that neither method is without its flaws, both operationally and theoretically (J. M. Morse, 2015; B. Smith & McGannon, 2018). Birt et al. (2016) believed that synthesized member check procedures are rigorous and alleviate member check validity concerns. In this study, use of synthesized member checks was twofold: first, allowing participants to validate results by confirming or disconfirming the summary provided

(objectivism), and second, providing participants the time and space for reflection allowing them the opportunity to share additional information (constructivism).

Ethical Considerations

A qualitative study must uphold the highest ethical standards, especially when human participants are involved (Babbie, 2017; Creswell & Creswell, 2018). To minimize human participant risk, the researcher first completed the Collaborative Institutional Training Initiative certification for Social-Behavioral-Educational research (CITI Program, n.d.). This program educates researchers on responsible and professional conduct for research involving human participants. After the certification for Social-Behavioral-Educational research was completed, the research proposal was reviewed by the California Baptist University (CBU) IRB. The CBU IRB review provided nonbiased scrutiny to assess potential risks of study participation and ensure that the researcher devised an appropriate plan to reduce such risks. Furthermore, the CBU IRB review evaluated proposed participant selection methods to ensure equitable outcomes for addressing the research questions.

It is imperative that the researcher take appropriate measures to do no harm, by obtaining informed consent and avoiding deception. Researchers must ensure participant privacy and confidentiality by engaging in data collection protocols that ensure confidentiality of participants as well as limiting prospective harm (physical, mental, emotional). To mitigate concerns surrounding participant anonymity, the researcher maintained interview transcripts on a secure encrypted personal drive, in which all files were password protected. Additionally participant names, their school names, or any other unique information that could be used to identify them was not included on interview transcripts or throughout this study (Lofland et al., 2006). Instead, each participant was assigned a chronological alphanumerical code.

Data Analysis

The researcher ascribed to Corbin and Strauss's (2015) interpretive grounded theory methodology. In grounded theory studies, data collection, analysis, and interpretation are an interconnected and continual process as researchers employ the constant comparative approach until saturation (no additional insight) is achieved (Corbin & Strauss, 2015; Creswell, 2103; Strauss & Corbin, 1990; Tracy, 2020). Furthermore, data collection and analysis were conducted simultaneously and built upon each other. As depicted in Figure 15, data analysis was an iterative process with constant comparison between interview transcripts among research participants, aided by memoing (Creswell & Gutterman, 2019). To reduce potential researcher bias and ensure analysis was driven by data collected rather than any preconceived notions, the researcher did not begin with a predetermined set of codes; instead, data were coded into categories that emerged naturally.

Figure 15 – Iterative zig-zag approach to data analysis
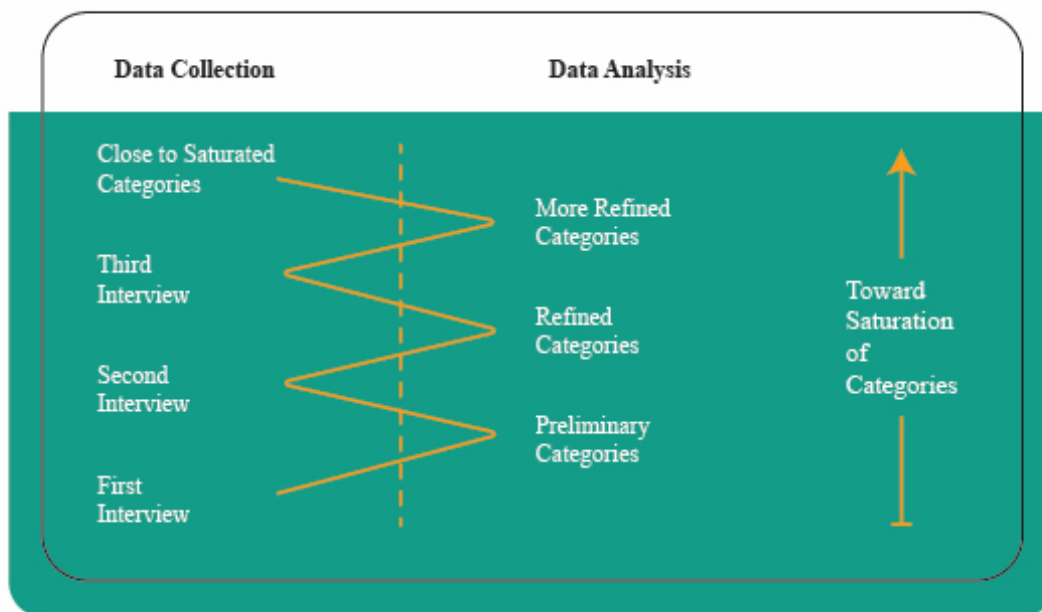
Note. From *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.), p. 445, by J. W. Creswell & T. C. Guetterman, 2019. Pearson.

Interview transcripts were reviewed in their entirety a minimum of three times, once during transcript correction, once during open coding, and once during axial coding. This review included line-by-line analysis and coding. Charmaz (2014) suggested that line-by-line coding is more effective. Data analysis began with open coding, a process in which the researcher reviewed interview transcripts for common language and concepts. Open coding included both descriptive and in vivo codes to capture participants' lived experiences and perceptions (Creswell & Guetterman, 2019; Saldaña, 2009). Turner (1994) described this process as developing a "basic vocabulary to form the bread and butter" (as cited in Saldaña, 2009, p. 199) of categories for future analysis. An excel file was used to organize open codes for each interview question. Interview questions were then organized with their respective research question.

Axial coding, the process of identifying common and dominant themes, was the second stage of data analysis. Through this process, initial open codes were reduced to identify dominant themes central to each research question. Throughout open and axial coding, the researcher sought to "break down qualitative data into discrete parts, closely examining them, and comparing them for similarities and differences" (Saldaña, 2009, p. 81). Continual memoing and concept mapping were engaged in throughout axial coding to identify relationships between themes. For example, when research participants were asked to identify the top three challenges they face as a California public higher education executive leader, various elements of financial resource management were cited. Initial codes included insufficient state funding, unpredictable state funding, historical declines in state funding, funding in arrears, state control of enrollment growth, and state control of nonresident enrollment. When open coding was finished and frequencies of similar codes were tallied, the concept of fiscal resources emerged as one of 15

larger themes for Research Question 1. As a result of axial coding, 15 conceptual themes emerged for Research Question 1. After further refinement, these 15 subthemes were organized into three broader categories: systemic barriers (with eight subthemes), institutional practices (with three subthemes), and societal determinants (with four subthemes).

The third and final stage of interpretive grounded theory coding is known as selective coding, a process in which the researcher identifies interconnections among categories developed during axial coding. Selective coding ultimately results in development of a theory, framework, or model (Creswell & Guetterman, 2019). A framework for public higher education leadership was grounded in data collection, analysis, and theoretical sampling. The public higher education model provides a visual representation of the autonomy and uniformity continuums that higher education CEOs must bridge and buffer.

Role of the Researcher

Qualitative researchers must be cognizant of their role as they "coproduce the narratives [they] presume to 'collect,' and [they] anticipate how the public and policymakers will receive, distort, and misread [their] data" (Fine et al., 2000, p. 127). As a former CCC and CSU alumna, and CCC counseling faculty for more than 8 years, the researcher had intimate knowledge of various institutional and systemic practices and processes that may impede student progress toward baccalaureate degree completion. As a CCC counselor, the researcher faced potential bias in assessing strengths and limitations of existing academic pathways for both first-term freshmen (FTF) and transfer-intending students. It must be recognized that the researcher was predisposed to negative biases as a result of numerous conference attendance related to the research topic and by working at the ground level with students day in and day out, helping them to navigate the maze that is California public higher education. These experiences may inadvertently impact

development of research and interview questions and skew data analysis. Further, the researcher's CCC work experience has been served in San Bernardino and Riverside counties. Issues the researcher observes in these counties may not be generalizable across the entire state.

The researcher's intimate work experience with CCC students influenced development of interview questions. Two questions directly asked research participants to identify "institutional and systemic barriers," one question asked CEOs to identify their "top three challenges," and two questions asked research participants to provide suggestions for "improving" (the California transfer function and efficiency of baccalaureate attainment). So, while there were other open-ended questions that allowed research participants to provide positive commentary, some did not. In an effort to reduce possible researcher bias in development of interview questions, the researcher conducted a pilot interview with their current CCC president in an effort to identify any potential gaps or inefficient questions.

With most higher education work experiences served across three different CCCs, the researcher may not have provided equal attention to the problems California FTF face compared to their CCC counterparts when analyzing data. A bias toward the needs of neo-traditional students that CCCs serve may inadvertently skew research results. To reduce potential researcher bias, the researcher excluded their current CCC president from the study and attempted to document both positive and negative perceptions shared. Lastly, while bias is inherent in a grounded theory approach, the researcher's reflexivity and disclosure of such potential biases enable mitigation.

Chapter 3 Summary

The purpose of this qualitative interpretive grounded theory study was to collect rich and thick data from California public higher education executive leaders who are, by the very nature

of their work, enmeshed within the convoluted higher education ecosystem. Higher education

CEOs are strategically positioned to provide a broad perspective of the multitude of issues at

hand, as they facilitate alignment between macro (federal, state, system offices), meso (regional

industry), and micro (institution and/or district) forces. The sample size of ($N = 47$) included

representation across all three California public higher education segments (UC $n = 11$, CSU $n =$

8, CCC $n = 28$), 19 of which are located in Southern California, 12 of which are located in

Central California, and 14 in Northern California (refer to Figure 14). Chapter 4 provides a

comprehensive assessment of their semistructured interviews that took place during the summer

of 2021.

PART 3

Findings

Part 1	Chapter 1	Introduction/Problem Statement
The Nature of the Research Problem	Chapter 2	Literature Review

Part 2	Chapter 3	Research Methodology
Research Methodology & Procedures		

Part 3	Chapter 4	Research Results and Analysis
Findings		

Part 4	Chapter 5	Discussion and Conclusions
Conclusion		

CHAPTER 4: RESEARCH RESULTS

Chapter 4 Overview

The problem outlined in Chapter 1 was a 1.1 million projected shortfall of baccalaureate degree holders to meet California labor market needs (Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al., 2015). As neo-traditional student enrollment is ever-increasing, the literature outlined in Chapter 2 documented a shift from college-ready to student-ready ideology and acknowledged that student retention and success are not the sole responsibility of students but also a result of institution site-level practices, systemwide policies, and statewide legislation. California public higher education executive leaders hold a unique position in which they can elaborate on the intricacies, complexities, and challenges associated with California student access to baccalaureate-level education and degree completion as they facilitate alignment between macro (federal, state, system offices), meso (regional industry, local city governance), and micro (institution and/or district) forces. Given the projected shortfall of baccalaureate degree holders across California, this study examined University of California (UC), California State University (CSU), and California Community College (CCC) executive leader's perceptions surrounding California student access to baccalaureate-level education as well as factors that may inhibit baccalaureate completion. This study also sought to examine how California public higher education executive leaders utilize their institutional core technology to bridge and buffer various macro, meso, and micro forces. This chapter is organized by the four guiding research questions the study sought to answer:

1. How do California higher education leaders perceive the current climate of baccalaureate access and completion, and what are their suggestions for making improvements?

2. How do California higher education leaders perceive the current climate of transfer, and what are their suggestions for improving baccalaureate access to CCC transfer students?

3. How do California higher education leaders from each segment (i.e., UC, CSU, and CCC) hold similar/dissimilar perceptions regarding the current climate of baccalaureate access and completion, or the role that transfer plays?

4. How do California higher education leaders prioritize multiple and competing initiatives from various stakeholders (e.g., federal, state, UC Office of the President, CSU/CCC Chancellor's Office)?

The researcher conducted a qualitative grounded theory study of California public higher education executive leaders to reveal leadership practices and perceptions surrounding California student access to baccalaureate-level education. The purpose of this study was to develop a framework of public higher education leadership. Study findings were grounded in the complex realities described by participants.

Analysis of Data

As a qualitative grounded theory study, the researcher ascribed to Corbin and Strauss's (2015) interpretive grounded theory methodology. In grounded theory studies, data collection, analysis, and interpretation are an interconnected and continual process as researchers employ the constant comparative approach until saturation (no additional insight) is achieved (Corbin & Strauss, 2015; Creswell, 2103; Fusch & Ness, 2015; Strauss & Corbin, 1990; Tracy, 2020). Data analysis was an iterative process with constant comparison between interview transcripts among participants. Furthermore, data collection and analysis were conducted simultaneously and built upon each other.

To reduce researcher bias and ensure analysis was driven by data collected rather than any preconceived notions, the researcher employed an inductive approach, common with the traditional grounded theory framework (Creswell & Poth, 2018). The researcher did not begin with a predetermined set of codes, instead data were coded into categories that emerged naturally. The researcher also actively engaged in memoing, which is integral in grounded theory data analysis (Corbin & Strauss, 2015). The researcher engaged in inductive analysis by first developing several broad categories (open coding) before identifying a central phenomenon (axial coding) and attempting to interconnect the categories (selective coding) to develop a relevant model or theory (Corbin & Strauss, 2015; Creswell, 2013; Strauss & Corbin, 1990). Several themes and subthemes emerged during open and axial coding, the most prevalent of which are explored in more detail in this chapter.

Participant Demographics

Interview transcripts from semistructured interviews with 47 (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) chancellors/CEOs/presidents were analyzed in their entirety a minimum of three times each to assess the four research questions of this study—once during transcript correction, once during open coding, and once during axial coding. After interviews concluded, the researcher engaged in open coding. After completion of open coding, the researcher sent all participants an emailed preliminary summary of collective responses. At that time, participants were asked some demographic questions and one additional question related to equity and were provided the opportunity to provide any additional commentary or thoughts as a result of reading the member check email summary. The results outlined in the following pages include data obtained from live interviews and member check email (MCE) correspondence. When citing direct quotations from participants, page numbers indicate data obtained from live interviews,

and MCE indicates data obtained after interviews via written email correspondence. To maintain participant anonymity, participants assigned alphanumeric codes are referenced for direct quotations. The alpha portion of their participant code identifies which system they were working at when they were interviewed (UC = A, CSU = B, CCC = C).

Results

Baccalaureate Access and Completion Overview [RQ1]

Participants were asked broad open-ended questions regarding California student access to baccalaureate-level education. When asked to share their perceptions on this topic, there were mixed responses. Seven participants believed California students have more access to higher education than most other states (UC $n = 3$, CSU $n = 2$, CCC $n = 2$). Positive perceptions surrounding California student access to baccalaureate-level education can be summarized by the following research participant quotes:

> I think it's one of the best states with a broad range of choices and a lot of opportunity for getting a 4-year degree. … So, the other large systems are New York, Texas, and California. I think California is clearly the best. (107A, p. 6)

> California is privileged in number of higher education institutions. Students have more options then in other states. We have good relationships with local 4-year institutions. (103C, p. 4)

> I think the state of California does a really good, you know I think we do a really good job in higher ed compared to a lot of other states. … I think with our community college promise programs, I think that's a fantastic route for people that you know may be your low income, middle income, or those folks that don't necessarily know what they want to do. And so, it gives them a little bit more time to figure that out. Then I also think the state has really stepped up with some of their basic needs programs for the community college, the CSU and UC … you know I think there's, there's room for improvement, but I do you know, I do think we're doing a good job in California. (124A, p. 8)

> We have done great strides within [our] region to really open the doors of opportunity to our students. I believe that we have collaborated very strongly with our community colleges. We work in tandem with them in a very strong, secure way. We have the K-16 collaborative right now, and that collaborative essentially establishes a framework from which the student coming into the junior high level will be able to know the pathway to

engineering, for example, into other STEM fields, as well as accounting and as well as the teaching profession. So, we have established a pretty strong roadmap so that the student in seventh grade knows if I pass this class in math, if I pass this class in English, then in science, then I'm on track to getting accepted to [CSU] automatically. (132B, p. 11)

While seven participants (UC *n* = 3, CSU *n* = 2, CCC *n* = 2) believed California students have more access to higher education than most other states, the majority (UC *n* = 6, CSU *n* = 7, CCC *n* = 18) revealed capacity constraints to admit all eligible applicants. Further, many participants (CSU *n* = 4, CCC *n* = 10) identified that capacity constraints can vary by region, with highly populated urban universities impacted more so than rural universities. However, as CCC (*n* = 8) presidents noted, student access in rural regions may be just as difficult because students may be forced to travel up to 2 hours to the nearest university, which is not feasible for many neo-traditional students who have family and work obligations.

When asked about baccalaureate attainment, UC CEOs were proud to report higher 4- and 6-year graduation rates than most public universities across the nation. In 2020, the 6-year graduation rate for the 2014 cohort was 86% for UC first-term freshman (FTF; UC, 2021a) compared to 63% for public institutions nationwide (NCES, 2022) CSU presidents also shared how efforts inspired by the systemwide Graduation Initiative 2025 (GI 2025) has resulted in higher graduation rates across many CSU campuses. Since the 2016 launch of GI 2025 targets, CSU FTF 4-year graduation rates increased from 19% to 33% and 6-year graduation rates increased from 57% to 63% in 2020-21 (CSU, 2021b). Similar gains for UC and CSU transfer students have also been documented (UC, 2021a; CSU, 2021b). In California, baccalaureate degree attainment for UC and CSU students exceeds most other states (Reddy & Dow, 2021). While UC and CSU graduation rates have increased over the last decade, many participants across all three segments acknowledged that equity gaps still persist and are a top priority (UC *n*

= 3; CSU $n = 2$; CCC $n = 13$). As several participants disclosed, access and equity are interconnected, because if access "doesn't come coupled with attainment, it's a false promise" (137B, p. 3). Furthermore, a participant shared, "There can be no equity unless we facilitate access for students from all cultural and economic backgrounds. Access includes admission, continued enrollment, and graduation at the very least" (112B, MCE).

Participants' perceptions surrounding California baccalaureate-level education access, capacity constraints, the role of CCCs in increasing baccalaureate access, regional disparities, and baccalaureate completion are expanded on in the following sections.

Systemic Barriers That Affect California Student Baccalaureate Access and Completion [RQ1]

Participants collectively identified eight major systemic barriers that inhibit California baccalaureate attainment: (a) California higher education funding structures: campuses/CEOs lack full control of income and expenditures ($n = 45$); (b) capacity constraints at most UC and CSU campuses to admit all eligible undergraduate applicants ($n = 31$); (c) state and federal student financial aid formulas and eligibility requirements ($n = 27$); (d) equity gaps persist in high school ($n = 8$) and college ($n = 18$); (e) declining public opinion on the value of a college degree ($n = 11$); (f) California higher education policymaking practices ($n = 17$); (g) deficient intra and intersegmental collaboration (e.g., application processes, admissions requirements, course articulation, graduation requirements, etc.) to establish seamless academic and career pathways ($n = 23$); and (h) faculty control of curriculum, especially as it relates to streamlining existing pathways ($n = 16$).

California Higher Education Funding Structures

State funding was cited as the number one challenge of executive leaders across all three segments (i.e., UC, CSU, CCC). All but one participant (UC $n = 11$, CSU $n = 8$, CCC $n = 27$) discussed funding challenges. These results align with those found by the American Council on Education (2017) study, in which financial resources were cited by college presidents as their number one challenge. Funding directly impacts baccalaureate attainment as it dictates the number of course offerings and support services (which help student retention). Declining state investment ($n = 9$) and insufficient ($n = 6$), unpredictable funding ($n = 3$) were the top concerns. A CSU president poignantly stated, "Educational equity requires access and attainment which require funding. The CSU is inadequately funded given its role in producing the majority of college graduates in the state, particularly BIPOC communities" (137B, MCE). A UC CEO shared a similar sentiment, commenting that "the state needs to put their money where their mouth is to in terms of funding those additional students and funding infrastructure and buildings on our campus too" (118A, pp. 15-16). Five other executive leaders (UC $n = 4$, CSU $n = 1$) stressed the importance of funding infrastructure, facilities, deferred maintenance, and capital outlay, as a UC CEO illuminated as follows:

> Without the will you don't get very far. Without that the people you can't implement. But we also need the infrastructure resources to be able to accomplish the mandates that we receive. Sometimes those infrastructure resources are harder to get. (134A, p. 4)

A CSU president illuminated funding disparities in private and public higher education endowments stating, "We don't all have Stanford's endowment. I think my annual budget is less than their endowment spins off every year, never mind what they get in tuition" (137B, p. 21).

Several participants also noted that historically, the California public higher education

funding structure has not encouraged completion metrics but instead has prioritized enrollment;

as a CSU president noted,

> That was the biggest disappointment I had coming from Texas. In Texas it is all about access. You receive your budget based upon how many students you're enrolling, and you can increase your budget by enrolling more students. Here, because of the funding system we're funded on a set number of [FTES], there's no incentive whatsoever to graduate a student or to admit a student, as long as I have a body in a chair, I'm going to get money. And that was a real shocker to me. (125B, p. 9)

A CCC president elaborated on this idea of budget-driven priorities:

> We're penalized publicly in some respects, for, "well why have you all just been doing that, why have you just allowed students to stay there for 6, 8 years, 10 years and never acquire anything? You guys aren't good educators; you are not thoughtful, and you don't care about the student, you care about resources." All of the things that we hear. But our system drove that outcome. How we were funded drove our behavior. And so, I think it's important to understand that how we got there was the structure of our system. So that would be one way in which our system office had a structure that was driving behavior. It didn't lead to upward mobility for people in our communities, right. It led to individuals being exposed to education, accessing education, but not necessarily taking that education and being able to operationalize it with a degree or certificate or some kind of retraining. (143C, p. 8)

A different CCC president agreed, commenting,

> The student-centered funding formula has some merit and there should be something similar in our UCs and CSUs. … It shouldn't be about how many hours that you have a student's butts in their seat; it should be about, you know, how many students are we getting through the system and having their successes. And unfortunately, that old model of just funding people's time in the classroom is a huge barrier. (144C, pp. 17-18)

Recent initiatives, such as the CCC student-centered funding formula (SCFF) attempt to link

funding to student success metrics, such as degree attainment and successful vertical transfer.

However, because of the COVID-19 pandemic adherence to the new SCFF was paused. Even so,

as a CCC president shared, 70% of the SCFF still relies on enrollment metrics, and only 10% is

based on completion metrics (i.e., number of students earning certificates, degrees, and/or

transferring to a university). The remaining 20% of the new SCFF is a supplemental allocation

for the number of students receiving a Pell Grant, a California College Promise Grant, and/or an

AB 540 waiver (CCCCO, 2020c). This led the CCC president to question,

> How transformative can that be when 60% of the funding formula is really around head count … because we know that from our history that's problematic … also, when you think about the values and what we espouse publicly as equity is the name of the game, but … only serves as 15% of the funding formula. So, value wise are we really resourcing what we espouse our goals and our mission as a system and, as a district, and as a college? So that becomes challenging. (143C, pp. 10-11)

The same CCC president also elaborated on the fact that CCCs serve multiple missions, not just

the transfer mission; however, the new CCC SCFF incentivizes transfer more so than technical

training or Career and Technical Education (CTE) certificates, which are paid out at lower rates.

Similar to CCCs, enrollment, not success metrics, have historically been the primary

criteria for UC and CSU state funding allocations (Murphey et al., 2014). First indications that

California would move toward a performance-based funding structure began with the Governor's

2013-14 proposed budget, which proposed up to a 20% increase to UC and CSU allocations over

a 4-year period (2013-14 to 2016-17), contingent upon them increasing various success metrics

(Murphey et al., 2014). However, both UC and CSU opposed this proposal, and the final budget

ultimately did not tie funding to success metrics (Murphey et al., 2014). Instead, the 2013-14

state budget eliminated enrollment targets for both the UC and CSU segments in exchange for

UC and CSU not raising tuition (LAO, 2014; Murphey et al., 2014).

Nine participants (UC $n = 6$, CSU $n = 2$, CCC $n = 1$) spoke of historical declines in

California higher education state funding, four of which blamed the increased spending on

criminal justice and prisons, data confirmed by the Campaign for College Opportunity (Reddy &

Dow, 2021) and other researchers (Hamilton & Nielson, 2021; refer to Figure 16). A UC CEO

identified that in the last decade undergraduate enrollment has increased 50%, while faculty

numbers have remained stagnant for the last 20 years (119A, p. 5). This results in larger class

sizes, some with enrollments upwards of 2,000 students aided by technology and teacher assistants. Participants (UC $n = 1$, CSU $n = 3$) argued that budget limitations make it difficult to maintain access for all degree-intending students while also maintaining institutional quality and reputation. A CSU president shared that "the CSU system has a very lean funding formula. And so, in order to be able to deliver a high-quality education … we need to achieve economies of scale" (135B, p. 3). A UC CEO urged that, "for us to be able to provide an affordable, accessible experience at scale, the state has to be a partner in funding" (146A, p. 9). Decreased state funding has a domino effect, as class sizes increase, so too does admission selectivity, especially in the most popular majors like computer science and biology.

Figure 16 – Share of state funding for UC and CSU versus corrections, 1970 to 2014
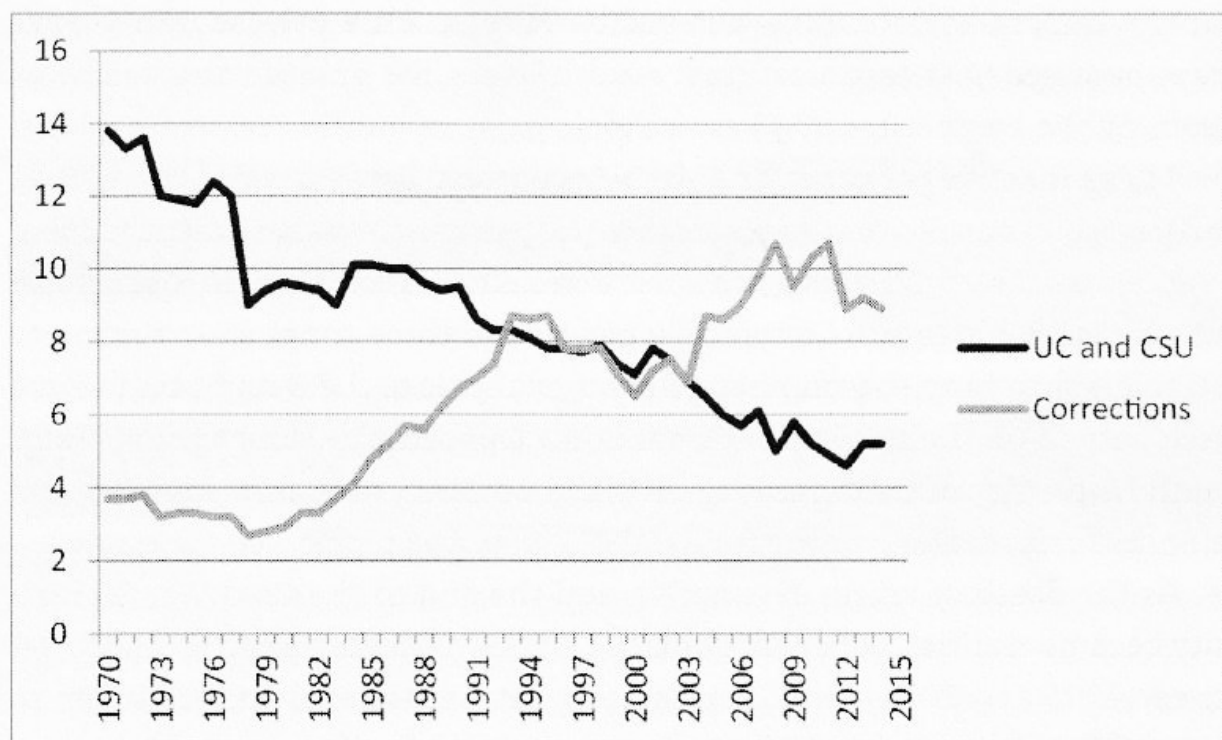
Note. Data are drawn from the University of California Info Center, State Spending on Corrections and Education. From *Broke: The Racial Consequences of Underfunding Public Universities*, by L. Hamilton & K. Nielsen, 2021, p. 13. The University of Chicago Press.

A CSU president described a "constellation of factors," not a single variable that was

responsible for the state's disinvestment in higher education:

> You've had other competing priorities. I mean if you look at the state budget, historically, probably 85 to 87% of the state budget has been mandated programs. So, there's only been 12 to 15% flexibility. And higher education has been in that 12 to 15%. That's a problem already. So that's a ratio and proportion of dollars that higher education even has access to, that it doesn't mandate in the same way that it does the K-14 system. … Second, we're in a category typically where we're having to compete against criminal justice. And so, criminal justice and the prison industrial complex have been in that slice. And part of the competing priorities is, I think, we spent too much money on criminal justice and prisons and not enough money on educating and feeding the homeless and hungry. The third is, education costs so much more. So, even with the dollars that we're being provided by the state, the amount of both services, as well as educational experience we're able to deliver just costs more. Some of that is because of faculty staff salaries, some of that is because of infrastructure costs, some of that is because of a whole range of things. But I think one of the factors is it costs more. So, whatever they used to give us had us develop that. But a big slice is I think a factor has to do with people's willingness and their perspective on the value of higher education. To me, I think the hope of any nation or citizenry, in this case of state of California, is what you invest in your children and your educated population. And this, I think, shows the priority that the state has had. So, it's not that they have defunded it, but they have relied much more on, you know, less and less on being able to give you access to those number of dollars and resources that you need in order to do the excellent job. (139B, pp. 3-4)

The same CSU president, who previously worked at UC, added the following:

> When I was in UC for example, UC is a much bigger enterprise, because it has medical centers etc., and it has a bunch of research grants being the R1s, so whatever the state cut down, the UCs could make up in another case. In the Cal State, it is very under-resourced, but it also doesn't have the capacity to generate more dollars. And while the UCs mentality has been to try to be more self-determined, in terms of its resource generation and even philanthropy, so much of the CSU has relied on state allocation. … And probably the last slice I would put in there has been the public appetite for you know, tax increases and other things to be able to fund education properly. (139B, pp. 4-5)

A CCC president voiced their frustration with the different full-time equivalent student (FTES)

payouts across all three segments, commenting,

> I think generally the argument I would make is that we're under resourced as an institution, and that's certainly the case under the new funding formula, and it's a frustration of mine constantly to try to have to argue that, you know, the institution that educates two thirds of

all the higher ed students in state, 25% in the country, is so under resourced on a per student basis. (121C, p. 6)

Similarly, another CCC president highlighted how the segment that serves the largest percentage

of students in need receives the least amount of funding per FTES, elaborating,

> I would say the top challenges are always financial. Community colleges, as you know, don't receive adequate funding. They don't receive what Cal State Universities receive or 4-year research institutions like UCs receive. So, we always have to serve the population that has the most need with the least resources. So, that always is a worry I think for most college presidents and CEOs, is how to pay your bills and continue to be competitive, how to provide adequate resources in terms of human resources, staffing, quality faculty, quality administrators. How do you retain them? And also, physical resources, how do you maintain your facilities so that they are going to be top notch. And provide the technology that students need today. (117C, pp. 3-4)

Furthermore, a couple of CCC presidents spoke of the different funding structure and the effect

of being lumped together with K-12 funding. A CCC president urged,

> Long term, we must organize better to persuade the lawmakers to either get us out of Prop 98 funding or increase the size of it. Right now, it's at 10.93% of the total Prop 98 comes to a community college. You know, even if we were just 11 or 12% it would mean millions of dollars more for my college. And that would help us serve our students a lot. (114C, p. 5)

> While several participants identified insufficient ($n = 6$) and unpredictable state funding

($n = 3$) as their number one concern, a couple shared a sense of hope that state funding increases

were on the horizon. A CSU president commented,

> I am feeling more optimistic about this this year than I have for some time because, against all expectations … California's economy has rebounded very strongly; the state has gotten very strong revenues, tax revenues. And so, for the first time in a long time the Board of Trustees' proposed budget was the one that was given to us, and there is some money for growth. And there's talk about maybe more growth funding coming out of the legislature this year in a follow-up bill. (135B, p. 8)

CSU and UC budgets recently returned to prerecession numbers (Reddy & Dow, 2021).

However, it should be noted that some student equity and completion initiatives may negatively

impact institutional finances. A CSU president highlighted an unintended consequence of the

CSU GI 2025 to increase graduation rates, highlighting,

> This is another systemic issue, I suppose, the way the tuition works in the Cal State system is that either you're part-time, and so you pay let's say $3,000 something, or you're full time and that's over 12 hours, but because now students are taking 15 hours we're getting the same amount of money and we're teaching three or four more credits, you know per student. So that has resulted in some financial difficulties. So, we're trying to make the Department of Finance understand this, you know this issue, of success comes at a cost. (112B, p. 6)

> The unpredictable nature of state funding allocations from year to year was cited by many

California public higher education executive leaders as a top challenge. This makes planning and

innovation more challenging, especially when schools are funded in the arears as a CSU

president discussed the legislative budget procedure as follows:

> Embedded in that is the state process by which they don't tell you your budget until June or July, when you have had to plan for the whole 6 or 8 months before that about how many students you're going to enroll and so on and so forth. So that makes planning a bit difficult. (112B, p. 4)

Another CSU president shared similar frustrations:

> Money is always scarce within the CSU. There's, there's really no flexibility to plan ahead, or there's no flexibility to plan innovative areas. We are reactive; we are not proactive in our way of managing the University. As far as monetary resources are concerned, the state one year can give us one budget, but then the following year that budget can be dramatically different. So, there is no stability as far as the budget is concerned from a year-to-year basis. It would be great if we were to be given a budget for 5 years and then say for these 5 years, you will have an incremental budget each year on the following areas for the following resources or for the following initiatives. But with a year-to-year sort of like you know hand to mouth type of model it's very difficult. (132B, pp. 3-4)

The same CSU president expanded on the topic later in the interview, adding,

> I do not know what the budget is going to be from one year to the next and that's untenable. It is not possible for any business out there in the world that says, I don't know what my budget is going to be, you know the next year … and we cannot plan, and if we cannot plan there's no innovation happening, and if there's no innovation happening we just simply, we are simply stuck, sort of like in this continuum of let's see what happens next year. (132B, p. 31)

In response to the above comments, some may counter-argue that in the business sector, forecasting happens annually to adjust for shifts in the market/economy/consumer demand and so forth. At what point do higher education CEOs stop playing the blame game, and instead partake in elusive "innovation"? Is this not the elite academy, the greatest collective of intellectual and human capital? The history of higher education teaches that funding has always been a primary concern since the establishment of the first colonial colleges (Thelin, 2019). Recognizing and acknowledging the perennial funding challenges, it would seem prudent for higher education CEOs to incorporate innovation into their annual budgets. Innovation can include new academic and research programs but should also include efficiency and effectiveness of existing systems.

The Impact of Neoliberalism. While not directly cited as neoliberalism, participants across all three segments (i.e., UC, CSU, CCC) collectively identified the disinvestment in public higher education resulting from various neoliberalism events. Hamilton and Nielson (2021) defined neoliberalism as "a moral and economic ideology, a set of policies and practices, and a broader social imaginary that supports the deflation of public spending on social welfare and the intensification of private market competition" (p. 6). Neoliberalism is the result of several converging ideology shifts (i.e., austerity, privatization, marketplace ideology) that have occurred over the last 50 years (Hamilton & Neilson, 2021; Newfield, 2016). One such factor is declining value of higher education, even though 40% of California jobs will require a baccalaureate degree (H. Johnson et al., 2019), and two thirds will require some type of college credential by 2030 (Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al., 2015).

California public higher education executive leaders reflected on the interplay between funding, reputation, and value. UC ($n = 2$) and CSU ($n = 3$) executive leaders discussed the importance of maintaining their reputation. A UC CEO identified their number two challenge as "maintaining our reputation in spite of budget cuts and funding deficits" (107A, p. 2), and later linked reputation to recruitment of quality faculty. Similarly, a CSU president linked the importance of reputation to funding, stating, "We've been kind of flying under the radar. People refer to us as the best kept secret, the hidden gem. That's great, but you know, we need to be more visible in order to get resources that we need" (126B, p. 3). Another CSU president also highlighted the importance of showcasing "the worth and value" of CSU to advocate for state funding as well as fundraising, commenting, "We can't just depend directly on the state government to say you know here's the money that we're giving to you, but we also have to diversify our portfolio" (132B, p. 10). The same CEO also shared,

> I feel that most people in the region and outside of the region, as well within California, they don't know what the worth and value of the university is in terms of the academic component of it, in terms of what we do with our students when they, once they come to us. They don't know, for example, that once we graduate a student, the student literally transforms his or her life and literally transforms the lives of like all of the family members around that person because of our high first-generation status. … And I don't think that most people see the connection between the more college graduates we have, the stronger our region will be, and the higher of a quality of life we will have [in our region]. (132B, pp. 10-11)

The same CEO later asked, "How do we teach our students to visualize the future after community college or after [CSU]" (132B, p. 22), suggesting that articulating the value of higher education in K-12 outreach is imperative and the onerous of higher education institutions. The CEO highlighted recent outreach efforts taking CSU faculty and students to local high schools in various disciplines:

> When the students see a professor and a student working together on a physics project, or a chemistry presentation, or writing, or journalism or whatever it might be, that has a

> powerful value on the K-12 students, because they start to identify the university on the one hand, and on the other hand they start to say to themselves ... I'm going to be like her, and if she made it, I'm going to make it too. (132B, p. 23)

Another CSU president also made light that if students don't understand the true value or multitude of pathways in college, then "many working-class students in particular, think well, 'if I can't be a doctor, or I can't be a nurse, why would I go to college'" (137B, p. 9). Another CSU president shared similar concerns over the impact of communicating the value of higher education to prospective and current students, commenting,

> We wait too long to help students see what their degree leads them to. So, if you can't see why you're investing in something, and life happens, then you may not stay. But if you can see where it's going to take you and what the steps are and you're already thinking about it as you're coming into the university, why wait until they're juniors and seniors to talk about career advising? (141B, p. 11)

This CEO blamed lack of career advising on the historical nature of higher education institutions, which operate in a decentralized manner, adding,

> And so, you know students get all kinds of different mixed messages and advice. And at a certain point they don't know what to listen to. And like I said, life happens and then they feel like they'll just step out for a moment and then they don't come back. (141B, p. 11)

Participants stressed the importance of stakeholders across all levels (i.e., students, families, higher education leaders, and policy actors) understanding the value of higher education. If a baccalaureate degree is not perceived as both a private ***and*** public good, then neoliberalism practices will continue to pervade. Decreasing public spending on items or services perceived to be a choice, not a right, is known as austerity (Hamilton & Nielson, 2021). Proponents of austerity believe that a competitive marketplace rewards hard working people and rewards need not be shared with "undeserving" others (Hamilton & Nielson, 2021, p. 9). But as Hamilton and Nielson (2021) observed, austerity ideology "does not acknowledge the structural advantages and disadvantages produced by race" (p. 9).

Several participants (UC $n = 6$, CSU $n = 2$, CCC $n = 1$) were concerned with the ideology shift that higher education is no longer perceived as a public investment. A UC CEO commented, "I do worry enormously about the lack of investment by the state and them seeing higher education as a cost, rather than an investment and a benefit" (119A, p. 2). The same UC CEO went so far as to state that there is an inverse relationship between higher education funding and increasing enrollments of neo-traditional students, commenting,

> It starts with Ronald Reagan, and it gets really bad beginning in 1980. So, it's been a long time since I think the state really put a value on and seeing this [higher education] as an investment. There was a shift … across the country seeing that higher education was a private benefit and not a public good, and so disinvestment. I happen to think that within California, as the state shifted its demographics to more and more students of color … that has biased where things are. And so, people don't see an investment in those populations as worthwhile. (119A, p. 7)

While a direct causation cannot be proved, several other scholars document the correlation between decreased federal and state support of higher education as the number of neo-traditional students increased (Hamilton & Nielson, 2021). Ronald Reagan's use of the term "welfare queen" ignited resentment of public resources being drained by people of color (Hamilton & Nielson, 2021). Furthermore, defunding higher education in the late 1960s and early 1970s occurred parallel to the dismantling of affirmative action (Hamilton & Nielson, 2021). The 1972 reauthorization of the Higher Education Act linked postsecondary funding to student attendance instead of directly funding schools, making it easier to cut funding (Hamilton & Nielson, 2021). After 1980, as California higher education funding decreased, prison spending increased (refer to Figure 16; Hamilton & Nielson, 2021; Reddy & Dow, 2021). Hamilton and Nielson (2021) argued that "state support was channeled away from public welfare to punitive functions that target marginalized populations" (p. 13).

The Role of Tuition. A primary mission of the 1960 California Master Plan for Higher Education (CMPHE) was to provide Californians affordable access to higher education. As such, UC, CSU, and CCC did not charge tuition to California residents, just campus-specific fees. As the cost of doing business increased, and state higher education funding decreased, all three segments (i.e., UC, CSU, CCC) were forced to deviate from the original plan. UC began charging tuition (aka "education fees") in 1970 and CCC began charging $5 per unit in 1985 (ABC10 Staff, 2017). California residents across all three segments now pay standardized tuition (i.e., $13,104 per year at UC, $6,782 per year at CSU, $46 per unit at CCC) and varying campus-specific fees. Tuition and campus-specific fees do not account for cost-of-living expenses (e.g., housing, transportation, food, textbooks, etc.). A CSU president suggested a correlation between state disinvestment of higher education and tuition:

> What's been the most difficult over the last 30-40 years has been maintaining the affordability element. Because education used to be free, we used to have no tuition, just fees. And now we've tacked on tuition, which in some cases represents the state's disinvestment in public higher education. And in fact, it has impacted access to some degree. (139B, pp. 2-3)

In addition to identifying fiscal stability as a top challenge, a few UC and CSU executive leaders also argue that a decade's worth of flat tuition is another contributing factor. A UC CEO elaborated, "For a long time, when we weren't able to do any tuition increases and state funding was fairly modest, that meant every single year we were getting cuts on the core academic budget" (146A, p. 2). From the direct mention of flat tuition, one could infer that some California public higher education executive leaders believe the burden lies not only with the state to increase funding but also with students and their families. This is another example of neoliberalism austerity ideology.

A CSU president discussed the relationship between flat tuition, state funding, and lack of enrollment growth. In CSU, tuition only covers approximately half of instructional costs; therefore, campuses rely heavily on state funding. Tuition is set by the system office, not allowing individual campuses to adjust to campus-specific needs or to keep up with inflation. However, the 1960 CMPHE established a historical narrative that higher education should be free for all. A CSU president believes that this narrative creates political pressure not to raise tuition, and in turn, impedes progress to increase access. What this president is referencing is essentially a state subsidy from which all California resident students benefit whether they realize it or not. Another CSU president also commented on the impact of higher education subsidies:

> If we were able to raise the tuition and provide financial aid for students who can't afford it, we would be able to serve more students. The fact of the matter, something that is an impolite fact is the fact that low tuition in the UC and the CSU is a huge upper middle-class subsidy for students. If you look at the income levels of students in the most selective UC campuses, for example, who are paying state tuition, you know they're high income. They don't need that state subsidy in effect. But we all get it. When you have a low tuition, everybody gets it regardless of the income level of household. So, if we were able to raise tuition and make up for it with financial aid for lower income students, that would help relieve the supply constraints that we have now. (135B, pp. 9-10)

This president believes that allowing predictable tuition increases to keep up with inflation would "eliminate the artificial supply constraint that we have right now" (135B, p. 16). Is the state knowingly contributing to the racialized construct of "merit" by limiting enrollment growth and ever-increasing selectivity?

When discussing the new UC tuition stability plan (UC, 2021c) to keep student tuition stable in 6-year cohorts, different UC CEOs shared different sentiments. A UC CEO believed the starting base for the tuition increases will not be much help, highlighting that $10 to $20 million

does not make a dent when you have a $3 billion budget. Another UC CEO took a more positive

outlook, stating,

> It's certainly helpful and it does a number of things that are very important, including creating a bigger pool of resources for us to address the total cost of attendance issues, especially for our less well-off students. So, it doesn't give us everything we need, but it was better than the situation we've been in for the last seven or eight years when essentially, we weren't getting anything on that half of the core budget. And it does allow us, I think, to make really important investments in support structures for students. (146A, p. 4)

While a few UC and CSU executive leaders voiced concerns about flat tuition and its

impact over the last decade, a CSU president shared a different viewpoint, stating,

> The students don't come from a lot of wealth and affluence, so you really don't want to raise costs on students because that creates obstacles in its own right and saddles up the debt, so we try to avoid that. So, we have to be really thoughtful about how we steward our funding and we've done that in several ways I think. You know, one is to avoid certain kinds of spendings by being more efficient in our processes. … So, we've been spending a lot of time re-engineering processes right, making sure they're streamlined, they're efficient, so that we can take those dollars that we save and put them back into the academic mission, which is the heart of the university. So that's just one way. The other way is that we've actually centralized the budget, not at the line item, but in general … so that we're able to make good choices and invest in strategic priorities. So, you don't have a department, for example, or college, or what have you, at the end of the fiscal year say, "oh, I have this extra money, what can I spend it on." That's not strategic. (141B, pp. 4-5)

The same CEO shared a slightly different sentiment later on in the interview when identifying

"funding and finances" as a barrier to baccalaureate completion: "I don't think it takes as much

money to support students as people think. You know there's good financial aid and so for a lot

of our students who are more underserved they do have resources there" (141B, p. 11).

Enrollment Management. Through state funding allocations, the California legislature

also controls enrollment growth or lack thereof. Across all three segments (i.e., UC, CSU, CCC)

enrollment management was one of the top challenges cited by California public higher

education executive leaders. Fourteen participants (UC $n = 4$, CSU $n = 1$, CCC $n = 9$) identified

enrollment management, especially amidst a global pandemic (UC $n = 1$, CCC $n = 2$) a top

priority. UC (*n* = 1) and CSU (*n* = 3) executive leaders identified lack of state funding for enrollment growth, which in turn creates a bottleneck for students as many UC and CSU campuses suffer capacity constraints to admit all eligible freshman and transfer students.

While guaranteed transfer pathways like CSU Associate Degree for Transfer (ADT) and UC Transfer Admission Guarantee (TAG) streamline transfer requirements, they are not available for all majors or campuses. Capacity constraints further increase admission selectivity. This means that the average admit grade point average (GPA) of freshman applicants exceeds 4.00 at several UC campuses. And increasing selectivity forces CCC transfer-intending students to complete major prep for multiple UC and CSU campuses to increase their chance of admission to at least one campus. This process in turn can increase the number of unnecessary units and time to successful transfer. Micro-level higher education realities must be evaluated through macro-level fiscal and political lenses.

On the topic of enrollment growth, a CSU president commented on the paradox of being a newer campus and lack of funding for enrollment growth:

> We are a small young campus. And when there was limited funds for enrollment growth, there was a tendency by the system to allocate the funding proportionately, in proportion to current size. Which meant that basically … the relative sizes of the campus were frozen in place when you do it that way. And we need to be given a greater than proportion and share of the overall funding if we're going to grow and catch up to the other campuses in terms of our absolute size. And the CSU system is a, has a very lean funding formula. (135B, p. 3)

In speaking of desire for the state to fund enrollment growth, a CSU president highlighted the immense gap between demand and capacity constraints, noting,

> Another challenge is that we are capped at a certain full-time equivalent number of students. And so, it's a challenge because last year we had 106,000 applications. And so, we have to turn away many, many, many very qualified students. … Some of them go out of state and that seems like a you know, a potential loss for California, speaking as California State University. So, I wish there would be resources available specific to enrollment growth. (112B, p. 4)

This same CSU president added,

> I'm not even sure if the legislators understand you know how this works, because they're always very interested in our increasing enrollment but somehow the relationship of taking another student without state support. Some of the other CSUs have developed a budget model where they do take more students, they take students over their cap. But that's a risky strategy from my standpoint financially because you're having to educate that student with half the money that you normally would have and so it's hard to, you know, hire, for example, tenure track faculty and so on. (112B, p. 5)

> Participants illuminated several factors that impact the feasibility of growing enrollment,

including student housing. A UC CEO shared,

> In theory, you could enroll a lot more students in my campus, but it would dramatically collapse the available housing structure. So, we have to build a lot of new housing in order to make sure that students have a place to be. (146A, pp. 9-10)

The same UC CEO added,

> I know the legislature would like us to wave a magic wand and just double the number of, triple the number of students that could be on our campuses and we're all thinking of new strategies for how to make that happen, but to get to do it in a thoughtful way that understands all of the constraints that are involved. (146A, p. 10)

One such constraint that this UC CEO highlighted was long-range development plans that each UC campus has in partnership with their local communities. There are several UC campuses that do not have the physical space to expand their campus, like UC Berkeley and UC Los Angeles. Also, as headlines have shared the recent case of UC Berkeley, whose local control board denied them the right to increase enrollment, a matter they took to California Supreme Court. Increasing enrollment not only requires physical space but fiscal resources to increase instructional offerings and support services that aid in student retention and completion.

Capacity Constraints

While seven participants highlighted strengths of California student access to higher education, the majority ($n = 31$) suggested opportunities for improvement. When asked if

California public higher education institutions have enough space to accommodate the number of

eligible baccalaureate degree-seeking students, a UC CEO illuminated present capacity

constraints:

> With the University of California, we absolutely cannot take everybody who applies. And the state unfortunately has reduced progressively, since about the late 1970s, the amount per student they give us. And they keep increasing the number of students they want us to take, and either not paying for them at all or paying much less than the cost of instruction. So, UC has absolutely had to be a little more dogmatic about not taking everyone, even though we're supposed to take the top 10% of all high school students that graduate in the state. And the students definitely don't get to come to their first choice in as much as they'd like to ... the top 10% will be offered a slot, but it won't necessarily be to their first or even second choice campus. (142A, p. 5)

A CSU president also stated that there was not enough "spots in the UCs and some of the

CSUs" (137B, p. 4) to accommodate all baccalaureate-degree seeking students, elaborating,

> You can see that in the numbers of folks particularly trying to get into Southern California CSUs. So, we either have to do something to kind of reapportion the enrollments so that there's plenty of room up at Sonoma State or San Francisco, but a lot of the students are located in Southern California, so, provide them with the financial means to go elsewhere. (137B, p. 4)

The same CSU president also shared concerns about access for Black Californians, who are more

likely to attend a for-profit institution, many of which have lower retention and completion rates

and higher loan default rates.

For an undergraduate class capacity of approximately 5,000 to 7,500 students, five UC

campuses (UC Los Angeles 139,482; UC Berkeley 112,835; UC San Diego 118,383; UC Irvine

107,943; UC Santa Barbara 105,631) received more than 100,000 freshmen applications for fall

2021 admission plus an additional 20,573 to 28,464 transfer applications (UC, 2021d). A UC

CEO framed the issue of limited access as result of their "tremendous success":

> And so, why do they want to get in? They want to get in because we've all done an incredible job of creating a fantastic educational research experience for people, right. So, they wouldn't want to get in if we weren't any good at it. But on the other hand, once you've done such a good job what you're going to find out is a lot of people want to get

in and then there's going to be a lot more disappointment. And state legislators in particular hear this disappointment all the time. (146A, p. 9)

Later in the interview when discussing transfer-intending students, the same CEO shared, "I don't see that the problem is that [the transfer process is] too complicated, I just see the problem is that there's not enough space" (146A, p. 22).

Some participants (UC $n = 2$, CSU $n = 1$) agreed that there was still space within their respective segments to absorb the demand for higher education. And a UC CEO believed that CCC and CSU have enough space to meet demand, but UCs don't. However, since the 2008 recession, the number of eligible CSU students who were denied admission (both freshman and transfer) increased fivefold, from 6,600 eligible students in 2008-09 to 34,400 in 2018-19 (Cook & Mehlotra, 2020). Between 2013 and 2016, CSU denied admission to 69,000 eligible California high school graduates and 35,000 eligible transfer students (Gao & Johnson, 2017).

Seven participants (UC $n = 1$, CSU $n = 1$, CCC $n = 5$) noted that California is not adequately meeting labor market demands for baccalaureate degree earners. A CCC president elaborated on this:

> I think that the capacity of our public higher education system for universities for University of California and Cal State University is not adequate to meet either the number of students who are qualified out of high school and out of community colleges for transfer. Nor is it adequate to produce the baccalaureate degree workforce that the economy of California needs. And the gap is large, and it's particularly exacerbated by gaps for historically underrepresented students. (108C, p. 3)

A different CCC president poignantly stated,

> I don't think we have enough access or fair access or ease of access. Which is again why the for-profits work so well because they make that process super easy. But we're so stuck in our in our traditions of processes. (103C, p. 19)

Regional Disparities. The majority ($n = 31$) of research participants highlighted capacity constraints within UC and CSU, several (CSU $n = 4$, CCC $n = 10$) of which commented on

regional disparities with highly populated urban universities impacted more so than rural

universities. However, CCC presidents ($n = 8$) noted that student access in rural regions may be

just as difficult because students may be forced to travel up to 2 hours to the nearest university,

which is not feasible for many neo-traditional students who have family and work obligations. A

CSU president commented on the mismatch between access points and demand across the state:

> I think there is fairly decent access. I think we have multiple pathways, particularly if you couple baccalaureate access with our community college partners. So, these are important partner institutions. But the reality is we don't always make available the programs in the places where students are, so there's something of a mismatch between sometimes where our institutions are located and how we reach out to students. … So, we do have I think seats and mechanisms, but we are leaving a lot on the table just because we're not well aligned. (141B, p. 7)

A CCC president elaborated on regional access disparities:

> We're trying to expand the partnerships; we're trying to obviously make sure that we get the students ready and give them all the opportunities to transfer with what they need. But eventually we're going to have to have the conversation as to, yes, we're graduating them where are they going? Because telling me that there is an opening in Humboldt State when the student lives in Long Beach and they have to take care of their parents, is really not right. (100C, p. 12)

A different CCC president who serves on the CCC Executive Board, shared how they are

advocating to change regional funding streams:

> Allocate the resources to the places that are having the most growth and having the most students, where the largest gaps are. Trying to get them to shift and say, for example, give more resources to [impacted CSU campuses], so it can accept more students. We are desperately, or we are working hard to advocate for that. (128C, p. 9)

It was also mentioned that less impacted campuses like Cal State East Bay, Cal State San

Marcos, or San Francisco State University, may be in areas where the cost of living is much

higher than the student's home base.

Baccalaureate Programs at CCC. Given present capacity constraints cited by the

majority participants ($n = 31$), executive leaders were asked if there was a role for CCCs to play

in offering baccalaureate programs, and if so, in what capacity. There were mixed responses to this question. Both community college ($n = 24$) and university executive leaders (UC $n = 6$, CSU $n = 5$) agree that it could help, especially in high demand careers (UC $n = 2$, CSU $n = 1$, CCC $n = 11$), or rural locations where baccalaureate options are limited. However, ten participants (UC $n = 5$, CSU $n = 5$) cited concerns about CCCs' ability to offer more baccalaureate programs (e.g., mission creep, current CCC ecosystem, present financial constraints, accreditation standards which change when offering more than one baccalaureate program, etc.). Alternative suggestions included increasing focus on existing pathways such as CSU ADTs, UC TAG, other Memorandum of Understanding (MOU) agreements/guaranteed transfer pathways, and development of more UC/CSU satellite campuses.

When asked if there was a role for CCCs to play in offering baccalaureate programs, UC ($n = 6$) and CSU ($n = 5$) executive leaders believe it could be possible, almost as a pie in the sky, anything's possible sentiment, but cited concerns related to funding and infrastructure required for baccalaureate instruction. Two UC CEOs also alluded to subpar CCC instructional quality, as one commented,

> I would be very nervous about that strategy for a couple of reasons. First of all, it fundamentally transforms the structure of community colleges. I would think it dramatically complicates the financial ecosystem. … And then you know there's sort of the issue of quality control as well. We work very hard, as does the Cal States, to recruit an outstanding scholarly faculty that can take everyone, all the way up to the highest level of baccalaureate level knowledge that you need in lots and lots of disciplines. I don't even know that there are enough faculty to accomplish the same thing within the community college ecosystem. (146A, p. 21)

A CSU president also cited concerns over CCC faculty capabilities to teach upper division coursework. However later in the interview said they did not think CCCs offering baccalaureate programs would negatively impact their CSU enrollment numbers:

I have no fear for us, and I don't think anybody should do or not do things because they have fear of anything. We should do what's right for students and what we need to provide is the kind of talent that is necessary to fill the jobs that are out there. (141B, p. 10)

A CCC president shared similar beliefs and shared Florida's success offering baccalaureate programs at community colleges, which increased economic development without decreasing 4-year higher education enrollment or instructional quality. Another CCC president provided a counterargument to those that bemoan the idea, commenting,

People say, "Oh it dilutes the mission," and I just can't understand that argument. Because the mission is for students to receive you know the best possible education. And if we can do that and meet the standards that we would be accredited by, remember all of them had to get an accreditation, to go through accreditation to be able to offer those degrees. So, it's not like there was any cut in quality. So, we can meet the demand in high demand areas, meet the need in high demand areas, and do it with a high degree of excellence and accountability, we should be doing it. (114C, p. 11)

A CSU president who also holds a Western Association of Schools and Colleges leadership position explained why it is unrealistic and inefficient for CCCs to offer baccalaureate programs:

If a community college in California offers at least two baccalaureate degrees, it automatically gets kicked out of the Junior Commission and moves over to the Senior Commission for review and is now subject to a different set of accreditation standards. Those accreditation standards would require essentially, that community colleges … do things like reduce the faculty teaching load so they can do a little research to support their teaching, and so forth. And so pretty soon you would end up replicating the cost structure of a 4-year institution. So, the idea that somehow, it's cheaper to do a baccalaureate in a community college is a mirage. I'm an economist, and so we like to say there's no such thing as a free lunch, right? So, if a community college is really going to do a good job with it, with a baccalaureate degree, it's going to have to in fact provide the resources that essentially a 4-year institution has to provide to be able to deliver it. If they're going to stick with their funding formula and their workload expectations for faculty when they're offering those 4-year degrees, then the quality is going to suffer. (135B, pp. 10-11)

This president agreed with other executive leaders that a better approach is to continue development of 2 + 2 pathways with CCCs, adding, "We have a formal MOU that we have signed with our feeder community colleges, where all the presidents are committing ourselves to

aggressively developing more two plus two programs and pathways for our students" (135B, p. 11). A CSU president did not hesitate to say they did not support CCCs offering baccalaureate programs but preferred to focus on existing ADT pathways noting that, "our through in two numbers have gone up from 45% to 75%...we can handle those students" (125B, p. 11).

A UC CEO with prior experience serving as UC Academic Senate chair, a role that requires collaborating with the CSU and CCC Academic Senate chairs, also believes CCCs lack the capacity and infrastructure to offer baccalaureate programs and highlighted the need to strengthen existing California transfer pathways, stating, "I think what's inherent and incumbent upon us within UC and Cal State is we've got to make those transfer pathways very transparent, easy to navigate, and we really need to work on the articulation systems around courses" (142A, p. 7). This CEO highlighted several regional collaborative partnerships that they were working on and explained the time and resources required to strengthen regional partnerships and articulation, sharing that it is "really detailed and exhausting work for the faculty to do because you have to evaluate all the syllabi, textbooks and so forth, the goals, objectives, measures of success for every single class" (142A, pp. 7-8).

A CSU president suggested that "there are areas that the community college can take a lead in the BA producing areas because we as a university, we can't cover it all and we can't teach it all" (132B, p. 20). However, this president did not believe CCCs should tackle baccalaureate programs on their own but instead should partner with CSUs to provide a joint degree program, especially those that would strengthen regional industries like nursing. Two UC CEOs shared similar ideas, suggesting that more UC and CSU satellite campuses be established, especially in rural areas at which UC part-time faculty could teach upper division coursework. A CCC president concurred, commenting, "I think they need to not be so territorial. We can be

offering their classes on our campus, and they can be teaching them without [students] having to

go off to their institutions. So particularly in their impacted programs" (120C, p. 15). A CSU

president also preferred "to see whether there are completion programs that 4-year universities

might be able to offer on site at community colleges" (141B, p. 8), adding, "I'm not opposed

necessarily in principle, but I think it's not always as easy and simple as people think and I

would prefer a partnership between the two" (141B, p. 8). A CCC president posed a different

model, in which CCCs could continue to serve as open access institutions for lower division

coursework, and UC and CSU could emulate this and provide open access to upper division

coursework. The CCC president elaborated,

> If CSUs were really that threatened by us offering baccalaureate degrees, maybe what
> they should consider is us being more of a pipeline, and maybe they focus on the upper
> division, and we focus on the lower division. And maybe then their resources would be
> enough to open up, maybe even become open access for the upper division with all of our
> students. So instead of the students meeting the qualifications, but having the door shut
> on them, they'd be able to receive all of our students. (116C, p. 11)

A few participants were supportive of CCCs offering baccalaureate programs so long as

they didn't duplicate existing UC and CSU programs. A CSU president noted,

> It doesn't make sense to duplicate what's already being offered in the region. But there
> are some specialized bachelor's degrees that we don't necessarily offer within the
> California State University system or UC where it would make sense. So perhaps in a
> rural area where there isn't access to a CSU or UC, it might make sense there. (126B, p.
> 11)

Another CSU president did not see a need to duplicate baccalaureate programs already widely

offered across UC and CSU (e.g., history, philosophy, psychology, etc.), but instead added, "If

there are bachelor's degrees that we're not offering that students need for a credential, then I

think it's worth a good conversation" (137B, p. 5). This president prefers that each system focus

on its core mission before taking on a counterpart's core mission. And while another CSU

president started off with favorable sentiments towards the idea, they quickly illuminated the

infrastructure that CCCs lack compared to 4-year counterparts, commenting,

> And if they could do it cheaper, and they could do it well, and they might be able to do it in certain areas even better than we can. You know preparing people for specific occupations because they often have great industry partnerships. So, as I say, I'm a minority, but I'm all for them trying if they really feel like they have the capacity to support undergraduates with libraries, with access to undergraduate research, all the things that we know are high impact educational practices for undergraduates. (112B, p. 12)

It is evident by the statements above that the majority of UC and CSU executive leaders believe

it best to continue streamlining existing transfer pathways and increase collaboration and

development of regional degree completion programs at more CCC campuses.

Student Financial Aid

In addition to institutional funding, the majority of participants (UC $n = 9$, CSU $n = 6$,

CCC $n = 12$) cited concerns regarding the cost of higher education and student access to financial

aid, which directly impacts retention and completion. Seven participants (UC $n = 2$, CSU $n = 2$,

CCC $n = 3$) specifically commented on the impact of cost-of-living variances across the state and

the desire for cost-of-living adjustment (COLA) to be included in financial aid calculations.

Additionally, when asked, "If you had a magic wand, what federal and/or state policies would

you like to see altered to increase the efficiency of baccalaureate attainment for California

students," UC ($n = 2$) and CSU ($n = 5$) executive leaders advocated for doubling the Pell Grant,

while CCC presidents ($n = 4$) advocated for increasing Cal Grant eligibility and payouts for CCC

students. A CCC president also mentioned the Institute for College Access & Success research

study (Szabo-Kubitz & Fung, 2020), which found "that it's cheaper to go to a UC in all nine

counties where there's a UC and a community college" (refer to Figure 11), adding, "That ought

to tell you something about how out of whack our financial aid system is" (121C, p. 7).

Additionally, three participants (UC $n = 2$, CSU $n = 1$) advocated for free tuition for CCC

students, and one expanded further with the desire to make higher education free at all three

levels, no matter the family income levels. However, this same UC CEO recognized that free

tuition for all students was not realistic as it would require a California Constitutional

Convention to restructure the state budget because higher education funding is presently in the

same discretionary money pot as other public resources.

While some participants did indicate that tuition in California is lower than many other

states, sometimes the sticker price alone can scare off many students and families from ever

applying. One UC CEO shared, "The Cal Grant program is an amazing program, we're so

fortunate to have it. But I do think that just the sheer cost of the sticker shock of higher

education, I do think is a barrier for some students" (124A, p. 11). The topic of financial literacy

and knowledge barriers that neo-traditional students have regarding sticker price versus net price

was cited by eight participants (UC $n = 1$, CSU $n = 2$, CCC $n = 5$). Therefore, financial literacy is

an important outreach topic when working with prospective students and their families to

educate them on the importance of submitting a Free Application for Federal Student Aid

(FAFSA) or California Dream Act Application (CADAA), and the difference between sticker

price and net price after financial aid is considered.

Even though California students have access to Pell Grant and robust Cal Grant monies,

the majority of participants (UC $n = 9$, CSU $n= 6$, CCC $n = 12$) cited concerns that financial aid

is inadequate in meeting students' total financial need. The gap between financial aid and need

can force students to work more, which reduces time and focus spent on school, and ultimately

students' momentum toward degree completion. A CSU president highlighted the gap between

financial aid and need, especially for students who may not be able to save money by living at

home:

> Even a fully funded student, so a student who's fully Pell eligible, gets all of a sub grant
> and Cal Grant monies, if they want to live in a residence hall here, they have a $7,000
> gap if their family can't help them at all. So, if they, and then that's part of why there's so
> much pressure on the Southern California campuses because that's where the population
> growth has been. So, they stay at home because they don't want to take out student loans.
> We need to find out a financial aid formula that helps them. (137B, pp. 6-7)

A UC CEO shared similar concerns regarding the gap between financial aid and need, adding

how this may impact middle-income students even more:

> And even though you've got really robust financial aid packages and the net cost isn't
> necessarily $36,000 or $38,000, for our students, you know our highest needs students,
> still have about a $10,000 gap between the total cost and what financial aid that they get.
> So, they still have to borrow or work and make up about a $10,000 gap. And so, you
> know, I do fear that we lose students that just don't see that as an attainable goal. And
> yet, despite … the outreach that we do, and despite the work that we put into trying to
> educate families about … UC really being affordable, I do think that we lose a number of
> students … our campus has really become a campus of have and have nots. … The
> middle-income band that we have on our campus is almost gone. I mean it is, it's
> frightening. (124A, p. 10)

Another UC CEO shared the same sentiments:

> The group of students that I actually worry the most about in some respects are lower
> middle-income students, because they are less apt to get the full level of financial aid that
> a low-income student gets. And they're often in a position where their families can't do a
> whole lot. And at the moment the self-help expectation in the UC system is pretty high.
> (119A, p. 4)

A CSU president shared similar concerns regarding middle-income students:

> The second group I worry about is the ones who are not fully Pell and fully Cal Grant
> eligible. Kind of you know, the lower middle class. … They don't qualify for all that aid,
> but their parents can't just fork over seven grand a year for tuition or 21 grand a year for
> tuition. And those are the students who end up with student loan debt. (137B, p. 7)

In addition to concerns that financial aid does not cover the total cost of attendance for

lower- and middle-income students, seven California public higher education executive leaders

(UC $n = 2$, CSU $n = 2$, CCC $n = 3$) illuminated the challenges of being in a high cost-of-living

area. Challenges included recruitment of faculty and staff as well as student retention. A CSU

president elaborated on how California's high cost-of-living impacts students:

> It means that even when we give our students as much financial support as we can, they're working multiple jobs. Many are living in multi-generational families with responsibilities. They might be commuting far distances because of the cost of living, and you know they're just one flat tire away from dropping out. So that means we should have even more institutional financial aid, you know financial student support because our students need more money. What would it be like if I could reduce the number of jobs that they had to take on? (126B, pp. 16-17)

The same president added that if you compare Housing and Urban Development (HUD) data for

two counties in California you will find drastic differences in low-income thresholds. In 2021,

for a family of four the low-income threshold was $55,750-$59,500 across half the state (i.e.,

Bakersfield, Coulsa County, Chico, Del Norte County, El Centro, Fresno, Glenn County,

Hanford-Corcoran, Inyo County, Humboldt, Lake County, Lassen County, Madera, Mariposa

County, Mendocino County, Merced, Modesto, Modoc County, Plumas County, Redding,

Siskiyou County, Stockton-Lodi, Tehama County, Trinity County, and Tuolumne County, Visalia-

Porterville, and Yuba City), but 150% higher or more in Los Angeles-Long Beach-Glendale

($94,600), Napa ($90,090), Oakland-Fremont ($109,600), Oxnard-Thousand Oaks-Ventura

($89,700), San Francisco ($146,350), San Diego-Carlsbad ($97,000), San Jose-Sunnyvale-Santa

Clara ($117,750), Santa Ana-Anaheim-Irvine ($107,550), Santa Cruz-Watsonville ($111,500),

Santa Maria-Santa Barbara ($100,050), and Santa Rosa ($93,050; U.S. Department of HUD,

2021). Yet, COLA is not considered in financial aid awards. A different CSU president also

illuminated strong concerns over cost-of-living, sharing that the average cost of a one-bedroom

apartment was $2,400-$3,100 a month, so finding cheaper off-campus housing is not an option at

all CSU campuses.

While there may be capacity to admit more students at some UC and CSU campuses, those located in high cost-of-living areas are not a realistic option for nonlocal, low-income students who cannot afford a higher cost-of-living from their home region. Another CSU president stated, "Cost of living and doing business is very high" (141B, p. 3). Furthermore, another CSU president stated that being centered in a high cost-of-living area did not affect recruitment efforts; however, it negatively impacts retention:

> They come, and then they realize how expensive it is, or they end up living in two-bedroom apartments with seven other people, eight people in a two-bedroom apartment, and have trouble concentrating and they're still working part time to pay it. So, it has affected our retention. (137B, p. 13)

The same president shared how present financial aid formulas are inconsistent:

> The whole thing is ridiculous. So, it costs, let's say $14,000 a year to live in housing, to have a room and board. And $6,000-$7,000 to go to the CSU. If my tuition was $14,000 and my room was $7,000, they get more financial aid. The way the financial aid formulas work it actually benefits universities that charge more in tuition. So, we need to do something. (137B, p. 12)

As housing costs have skyrocketed, especially during the COVID-19 global pandemic, six participants (UC $n = 2$, CSU $n = 2$, CCC $n = 2$) commented on the need for the state to increase funding for on-campus student housing, one of whom emphasized the need for student housing at CCCs to help address housing costs in high cost-of-living areas. This CCC president elaborated on how the new CCC SCFF is harmful to schools in high cost-of-living regions because less students qualify for Pell Grants (one of the SCFF metrics). However, in high cost-of-living regions, Pell Grant monies do not stretch as far for students that face disproportionately higher housing costs. Furthermore, present financial aid formulas award less money for cost-of-living expenses when students attend a CCC compared to a CSU or UC students (reference Table 4). Whether a student is attending UC San Diego or San Diego City College, they will be paying the same high-cost rent.

Equity Gaps

When asked what systemic and institutional barriers inhibit access to baccalaureate-level education, eight participants (UC *n* = 4; CSU *n* = 1, CCC *n* = 3) mentioned inequitable access to college prep courses in high school While the percentage of college-going high school graduates continues to increase (Cook & Mehlotra, 2020; Silver et al., 2017), California high schools are not keeping up with the demand for A-G approved courses, honors, AP, and IB courses. A UC CEO discussed a present workgroup that has convened to investigate Black student recruitment and retention, only to uncover that they arrive with fewer AP units then other admitted students, illuminating that "they are already at a disadvantage towards degree completion" (118A, p. 15). Another CSU president highlighted that only 47% of their local Black high school students had completed A-G requirements. Additional concerns included lack of social capital to advocate for these courses on behalf of their children. Because of this, a CSU president believed that higher education institutions should partner earlier with local high schools to encourage completion of A-G requirements.

A CSU president identified what they coined cultural barriers "projected through the media" and "various influential institutions, including our K-12 institutions," directly and indirectly, that inhibit college going behavior (132B, p. 24). The president added, "I think a lot of the responsibility goes to the K-12 partners … who still have this notion that certain people are bound for college," (132B, p. 24). At all levels of K-12, teachers are gatekeepers:

> For who gets to go to college and who doesn't get to go to college. With to whom do I invest my time in the classroom as a teacher and encourage that person. And really build that self-confidence up and say I believe in you and because of this, I know that you're going to make it to college. (132B, p. 25)

In additional to identifying inequitable access to college-prep courses in high school, many participants discussed equity gaps for their respective institutions. While UC and CSU

graduation and transfer rates have improved over the last decade, participants across all three

segments (UC $n = 3$, CSU $n = 2$, CCC $n = 13$) acknowledged that equity gaps still persist and are

a top priority. As several participants pointed out, access and equity are interconnected, because

if access "doesn't come coupled with attainment, it's a false promise" (137B, p. 3). Furthermore,

a participant shared, "There can be no equity unless we facilitate access for students from all

cultural and economic backgrounds. Access includes admission, continued enrollment, and

graduation at the very least" (112B, MCE).

Public Opinion on the Value of a College Degree

The last major systemic theme that emerged when participants were asked to identify

present barriers to California student baccalaureate access and attainment involved public

perception of the value of higher education. CSU ($n = 5$) and CCC ($n = 6$) presidents spoke of

the importance of publicizing the value of a college degree. A CSU president spent considerable

time discussing the importance of communicating the value of higher education to the broader

public, not only for the benefit of the students, their families, and the regional and state

economies, but also with an intention to secure increased state funding and philanthropy monies:

> I feel that most, most people in the region and outside of the region, as well within
> California, they don't know what the worth and value of the university in terms of the
> academic component of it, in terms of what we do with our students once they come to
> us. They don't know, for example, that once we graduate a student, the student literally
> transforms his or her life and literally transforms the lives of all of the family members
> around that person because of our high first-generation status. … So really articulating
> the concrete value of college on the one hand, but on the other hand, articulating that
> intrinsic value that cannot be quantified of the experience of what a college degree really
> represents to most of our students. (132B, pp. 10 and 14)

The same CSU president later urged that CCCs also publicize their value to prospective students

and share their success stories with the broader public, stating,

> How come we're not hearing what the value of the community college is? For the most
> part, we hear community college is a waste of time and it takes, instead of taking 2 years

it takes 4 or 5, 6 years or whatever else. And the students don't know what they're doing, and there's no direction. … I think there needs to be a concerted effort into saying the community colleges are an integral, equal, powerful part in the process of educating our people. And, especially for a lot of Latinx communities and for African American and Asian communities and other communities of color, they're crucially fundamental. … I think the value of a degree needs to be articulated. I think the value of what happens when you actually get a degree from [CCC] or from [CSU] needs to be front and center in all of our conversations with our students and the K-12. And again, it's our responsibility as higher education institutions to do the outreach. (132B, p. 19)

On the same topic, a CCC president shared a contradictory sentiment:

Access to higher education, you know, we have to be able to sell the value. And actually, I hope we can get off of that. I don't even like that phrase of trying to sell the value of higher education. It should be a given and not something we have to debate. (115C, p. 17)

A couple of CCC presidents commented on neo-traditional students' inability to weigh their short-term opportunity costs with long-term gains. A CCC president mentioned that the Guided Pathways framework is hoping to connect these dots earlier for students.

California Higher Education Policymaking

The influence of state legislature and other policy actors was mentioned by one third of participants (UC $n = 3$, CSU $n = 2$, CCC $n = 12$). A UC CEO believed California's legislative history creates additional barriers to managing higher education, stating,

We do a lot of legislation by vote, by initiative now in California. And things individually sound great, but when you add them all up together, they really bind our state budget into very, very little discretionary money. So, the non-designated money that the state has only goes to two areas, higher education, and our prisons. So, you know, education keeps people out of prison, ironically, those the two that are in competition with each other to ever get increased funds from the state. And if, in fact, we could do a Constitutional Convention and restructure how the state budget is structured that would be great. That would be probably one of the few ways we could get to a point where we could remove tuition. (142A, p. 11)

The same CEO added that the 1970s higher education and other state-funded programs were thriving in California. But after Prop 13 passed, within 3 to 5 years public services began to

erode. Furthermore, five participants (UC *n* = 1, CCC *n* = 4) noted the impact of various political

climates, as evidenced by the following comment:

> The State politics I think that's a little harder to influence, and that leads to drastic change in rules, as we have seen over the last couple of years. And while I'm not saying that they're good or bad, it's just challenging because you haven't been able to finish one, and then the next one comes, and you have to you know try to roll that out on your campus which creates discomfort, and that discomfort leads to a number of challenges. (100C, p. 7)

A CCC president shared that even within the same region, the political climate across CCC

campuses can be vastly different, which is evident in various responses to the June 5, 2020, CCC

Chancellor's Office (CCCCO) Call to Action and COVID-19 vaccination rules. This is the result

of 116 CCCs operating independently under 73 different districts with their own board of

trustees, a very different structure than the UC and CSU.

Participants commented on the interplay of California policy actors' relationship with the

three-tiered higher education structure. A UC CEO commented on the interplay of policy actors

and higher education:

> So, at the University of California, where given that we're a public institution and the people of the state have created us to accomplish certain goals that benefit the people of the state, they have not only a right, but an obligation to let us know what is it that we could do that's going to be in the best interest of the people of California. And so, a number of things arises as a result of that. One is that a lot of basic planning has to be done in partnership with Sacramento. For example, on things like undergraduate enrollment, which they care a lot about. On things like the transfer policy and what the ratio should be. … So, it's a, it is a more public-oriented approach. There's more coordination that has to happen across institutions. And there's more direction from folks other than university leadership, campus leadership about, about priorities that need to be attended to. But I don't consider any of those big problems. I think it comes with the territory and that's in the nature of being a public institution. (146A, pp. 5-6)

Later in their interview, the same UC CEO spoke of the political pressure legislators face from

citizens of the state:

> [Legislators] believe, the only thing they hear from their constituents about the University of California is my kid had a 4.3 and took 100 million APs and was denied admission to

all of the UC campuses they wanted to get admitted to. And that's the only thing they hear. They don't hear complaints that the legislature isn't giving us enough support. They don't hear complaints about the quality of our labs or anything. They only hear from the people who can't get in. And the people say, "Look I've been paying taxes in California for the last 18 years since you know my kid was born here and we're supporting the system, how come I can't get into the system that we're supporting." (146A, p. 11)

A different UC CEO brought light to the impact of friction between two policy actors and the resulting impact on the 2:1 freshman to transfer mandate at UC:

There wasn't the best relationship between the governor and the president of the UC system at that time and so I do think that this 2:1 issue that elevated, or escalated very quickly, was really a result of that the friction between those two individuals and how it related to budget negotiations. (118A, p. 8)

Several California public higher education executive leaders discussed their efforts to integrate themselves into various statewide committees, nonprofit organizations, and to spend time lobbying with legislators. However, while some participants believe they have appropriate outlets to voice their concerns and advocate for institutional support, one poignantly shared, "I may have voice. I don't know if I have influence" (112B, p. 18). A different CCC president shared that they believe they have a "really good conduit to" legislature, but not with the CCC Chancellor's Office (121C, p. 8). A different CCC president who serves on the CCC CEO Executive Board provided additional commentary as to why they do not feel their voice is valued as much as others across the state:

We're frustrated that the voice of [CCC] CEOs isn't heard, so I won't talk about me myself, but as a system, no, we're not included at the same level and interests at the Board of Governors and at the Communication Council. If you look at who is invited to speak, or how many members participate in those things, they're talking with all the different constituent groups, but often the [CCC] CEO group is lacking or isn't invited to give our point of view on topics. So that is an area where we are starting to try to gain access. (128C, p. 11)

A different CCC president shared how advocating for resources is even more difficult coming from a small college:

Getting people to notice you when you're in a small rural district is really hard. Because you know, you don't have the political capital that large areas like LA or San Francisco do. And so, you know, you're not listened to the same way. … Advocacy is still very hard. You can jump up and down and scream, and you know do everything that you can, grab your megaphone, but you still don't get listened to. (116C, pp. 4-5)

A CSU president described the fine line they walk as a CEO embedded within a larger system:

I'm always part of a system right. So, I can't independently go to the legislature and say, this is what's going on at [CSU], therefore, give me, you know what I need. … So, I have to always balance a very fine line between being a team member of a 23 campus system, and then really advocating for what I need locally. (132B, p. 12)

A CCC president with out-of-state higher education experience shared their frustration

with California legislative oversight:

It's so much harder to run this college because I want to do something and oh no state law doesn't allow that. Okay well let's raise tuition. No, the legislature sets tuition; getting more students doesn't solve your budget problem if you're at the max funding. Okay well let's do this, oh no academic senate has to do that. Oh no deal with the union, that's a working condition you've got to bargain it. It's just the same bag of tricks that most colleges have of locally controlling tuition or number students, it doesn't work in California the same. (105C, p. 10)

Generally speaking, since the majority of higher education is state funded (not federal), the California Governor, board of governors, and state legislature have the most influence over UC/CSU/CCC funding steams, control enrollment growth (or lack thereof), and legislate tuition increases (or lack thereof). A CSU president suggested that state legislatures lack understanding of statewide practices as they demand campuses to increase enrollment yet fail to increase funding. Another UC CEO would agree with this statement, as they also shared that in the last decade undergraduate enrollment has increased 50%, while faculty numbers have remained stagnant for the last 20 years. And since California legislative term limits are shorter, there is a revolving door of new legislators, who don't necessarily understand the breadth and depth of higher education issues. Even so, a CCC president has observed that the state legislature is now more involved and prescriptive in their mandates, like requiring a basic skills coordinator. Lastly,

a CCC president shared that the state legislature's a one-size-fits-all approach does not meet unique institutional needs.

California Higher Education Governance Structures. Six participants (UC $n = 2$, CSU $n = 1$, CCC $n = 3$) noted differences among legislative and governance structures across the UC, CSU, and CCC. A CCC president perceived that CCCs lack the same collective influence as UC and CSU because they operate as 73 independent districts:

> We're not a system, we're 73 independent districts. And so, we don't have the collective influence. We don't have taxing power. We don't have labor union power. And we have 73 voices, where Cal State and CSU have single voices. These are the unique California situations. Even though we're the largest in the nation, and we do a great job, we spend a lot of our energy dealing with the structural factors that you don't see in other states. (108C, p. 11)

A UC CEO agreed that the existing CCC operating structure provides additional challenges. They believed that operating as one coherent system works much better:

> In the Cal State University system, it's a system, just like University of California is a system. And so, they have many more campuses than we do. We have our 10. And that process of having a single Board of Regents, Board of Trustees I think is infinitely better, in my personal opinion, especially having served on the Board of Regents for the University of California when I was chair of the Academic Senate. It's night and day difference to have a cohesive coherent set of policies, procedures, and integration across one university system. (142A, p. 4)

A different UC CEO spoke highly of the UC structure:

> As a system, we also want to make sure that we have standardized certain kinds of practices, for example, Title IX practices so that each campus isn't doing its own separate thing. Because, ultimately, the Regents are responsible for the well-being. So, there's a level of coordination, but that's usually very helpful, right. We all learn from each other and it's an incredibly talented group of people. (146A, p. 5)

Oppositely, a CSU president found the singular system structure of CSU restrictive, stating that one of the top challenges they face as CEO is "being part of a system where decisions are made, whether it's about COVID-19 for example, or whether it's about computer systems or software or anything like that, that don't necessarily fit the University itself" (125B, p. 3).

Constitutionally, UC was created differently than CSU and CCC. This difference results in much more autonomy afforded to UC, as the following CEO highlighted:

> University of California was designated as the research arm in the state of California and with constitutional autonomy, which doesn't exist for either Cal State or the community colleges. So, in other words, the legislature can't force us to do anything. They can always withhold something in our budget and kind of twist our arms, but they can't make us otherwise, they can't legislate it. (142A, p. 3)

A CSU president, and former UC administrator, also discussed UCs' constitutional autonomy, stating, "The legislature can suggest to the board of trustees, or the Board of Regents, but they don't have to do it" (112B, p. 15). It is apparent that the extra autonomy afforded to UC compared to CSU and CCC is a frustration point. As a CCC president spoke of the SB 1440 legislation mandating development of ADTs, "That 2012 that legislation was a joke when it came out, we all knew that. UCs going like, 'yeah we'll get on that,' and here we are nearly a decade later and they're still thinking about it" (114C, p. 22). The same CCC president added,

> I don't even think we need to change the governance structure; we just have to force them to accept a few changes. I mean Cal States and K-12s and California community colleges are all mandated to do various things. It's just patently ridiculous that we let one of the four public education sectors in California to ignore the will of the state. (114C, p. 22)

Another CCC president shared similar frustrations, stating, "So we all know that the legislature cannot mandate the UCs. They are the biggest receivers of public funds, and also the biggest producers of barriers" (133C, p. 18). Two CCC presidents alleged that UC is able to sidestep some mandates (e.g., SB 1440) because they control the state legislature, the result of having prominent and highly influential alumni who are able lobby on behalf of UC. Further, another CCC president believed,

> We have the best legislature money can buy, and most of the unions have bought them. And so that's why that the universities are able to tell the legislators what types of programs could be farmed out to the community colleges and what types can't. So, for example, all of the beginning nursing programs start in the community college because the 4-year universities don't want them, but they won't allow the community colleges to

follow through with a bachelor's degree for nursing. … I just think that the system is antiquated and it's never going to change. They won't change unless they have to change, and they don't have to change. They can have what they want because they bought the legislature off. And think about it, there's a pecking order of funding from the legislature, and you know the universities are on the top of that heap. (102C, pp. 3-4)

A different CCC president shared a similar sentiment, commenting, "UCs are a private nation. They will hire armies to protect their walls" (114C, p. 20).

Legislative Influence on Funding and Tuition. A CCC president explained how system budget timelines and the relationship between the CCC chancellor and the Governor's Office is quite different from UC and CSU:

Our chancellor is a member of the governor's executive branch. So, we're not independent from the governor's office. So, we're much more dependent on what the governor's office and the Department of Finance does. The other segments negotiate directly with the governor and their chancellors have much more influence with the governor's office than our chancellor does. (108C, p. 8)

A UC CEO made mention that state legislators are cognizant of the fact that the UC and CSU have additional means for funding operating expenses:

The university has levers that it can pull to manage the situation even without full funding from the state. And while no politician will say in public that they support tuition increases, they know that if push comes to shove, if the state puts us in a bind and we can't manage it unless we increase tuition, we'll just increase tuition; we'll get it done in a different way. So, they don't feel like it's necessarily their responsibility to make us whole. (146A, p. 13)

In addition to increasing tuition or campus-specific fees, another method for increasing resources amidst decreased state funding has been to increase non-California resident enrollment. UC Berkeley, UC Los Angeles, and UC San Diego have long been known for enrolling up to 25% of out-of-state and international students (refer to Tables 2 and 3), who pay three times more tuition than a California resident (Hamilton & Nielson, 2021).

Recently, legislators have called upon UC to reduce that percentage to 18% for each

campus (University of California, 2017), with pressure for even more reduction as a CEO

commented as follows:

> The long-term pressure, by the way, to make that number, which is now 18% even lower
> is certainly there. And I think it's unfortunate because I think it's a value to Californians
> to go to a UC where there's a very diverse group of people there. But the political
> pressure is to get that 18% number to 15% or to 10% or zero. And so, we'll see, we'll see
> whether that happens and what the implications are for that in the years to come. (146A,
> p. 16)

In response to the member check email summary, a different UC CEO shared similar sentiments,

stating,

> I cannot emphasize enough [that] the lack of funding from the state is a major headache
> and challenge for all California higher education. And every time we have tried to create
> other sources of revenue (like adding out-of-state students to both provide a more diverse
> student body in the broadest sense of that definition, i.e., the student from rural Maine or
> the deep south adds to the experience for all) to say nothing of the impact that
> international students can have to contribute revenue that benefits all students), the
> legislature makes us reduce that resource without compensating us for that. They are also
> failing to make capital resources available for our aging and seismically challenged
> infrastructure—we have not had a general obligation bond since 2005 for example, and in
> a flush year like last year they only provided about $500M in capital primarily for
> housing. The lack of sophisticated appreciation of what UC provides to the state by both
> the legislature and the Governor's staff is truly disheartening. (119A, MCE)

It should be noted, that even recent mandates to reduce UC international and out-of-state

enrollment is addressed to varying degrees, as four (Berkeley, Los Angeles, San Diego, and

Irvine) of the nine undergraduate campuses were provided "grandfather clauses" to keep their

current rate of nonresident enrollments, but just not allowed to increase beyond their current

percentages (University of California, 2017). This is evidence of another tension even within the

same system and sentiments shared by the same CEO. On one hand, UC is structured as one

system with singular systemwide Title IX polices, yet not all campuses are held to the same

standards regarding the 2:1 freshman to transfer ratio or the 18% nonresident enrollment

threshold. Are some UC campuses revered more than others? Are some UC campuses afforded

more power based on their R1 status or US News Best Colleges ranking? Or is it a reflection of

fiscal stability?

With the influx of federal COVID-19 relief monies, California has engaged in a pilot

study of sorts, paying UC campuses the difference to admit more California residents. A UC

CEO explained the financial implications of reducing nonresident enrollment:

> If all we did was now go to 18% and all you did was give us a couple of bucks for the
> new California residents, every campus would go bankrupt. And it's in the billions of
> dollars. So, they're just starting now, the state's just starting now that it's a little flushed
> temporarily with some extra money to run an experiment to see whether they can start
> buying those students down at the full cost of making the universities whole for the
> nonresident, the lost nonresident tuition number. And we'll see if they continue down that
> path. I'm not sure it's a sustainable financial model for the state but, but they're running
> an experiment. (146A, pp. 16-17)

A different UC CEO also expressed concerns regarding state legislature's desire to reduce the

number of out-of-state and international students, stating,

> I'm very critical of the state's efforts to reduce our out-of-state population. They seem to
> think this is all a zero-sum game. And that any place you free up of an out-of-state or
> international student is another space for a California student. And what I … say is tell us
> how many California students you want us to educate, and we'll do it. But let us use the
> subsidy that we get from our out-of-state students to do it more effectively. (138A, p. 9)

Furthermore, another UC CEO provided additional evidence for why out-of-state students bring

value to California higher education:

> A third of domestic out-of-state students stay in California after graduation. So, one of
> our arguments to the state is, of course, you got to, and here's a significant fraction of
> amazing students who stay in California and start paying taxes, and you didn't have to
> educate them K-12. So, stop complaining about it. (119A, p. 14)

This UC CEO shared with pride that their 2021 incoming class represented 108 different

countries.

A CSU president held an opposing view stating, "I see the legislative effort to curb the UCs international population. That will have a positive effect for California students, perhaps. Well, I feel it sure will" (112B, p. 10). This comment was made after stating that the number one issue surrounding baccalaureate access for California students, was the result of "the state not funding enrollment growth" (p. 10). A different CSU president also made comment that the UC "business model relies a lot on out-of-state and international students" (126B p. 10). When asked if there is enough space in California for all of the baccalaureate degree-seeking students, a CCC president correlated a lack of access to the prioritization of international and out-of-state students (144C, p. 2).

While most participants blamed state policy actors for funding constraints, one UC CEO took the opposite approach of playing the blame game, noting,

> I think we're doing very well within the current structure that we have. And maybe there are things that can make it a little bit better, but I consider most of the things that we have to do to make it better to be under my shoulders rather than on the shoulders of only the federal government or this or that. So, we're not you know blaming someone else for our ability to do even more. (146A, p. 26)

California Master Plan for Higher Education. The topic of the 1960 California CMPHE was brought up by 12 participants unsolicited. Three participants (UC $n = 2$, CSU $n = 1$) mentioned it with positivity, believing it was a good idea and that its purpose was to increase access to a variety of students with diverse needs, as is exemplified by the following CSU president statement:

> I love the master plan that we have been operating under for years….And we have always desired or aspired to excellence in academics and research, access to California state citizenry, and really all citizens of the nation in world in some respects. (139B, p. 2)

One CSU president shared mixed feelings, commenting:

> In some respects, the master plan of California Higher Education provides students with access to institutions across the state. However, because education in research and state

universities are often influenced by student performance, by grades and test scores, it is possible that institutions of higher learning restrict more access than they provide. (139B)

More participants (UC *n* = 1, CSU *n* = 1, CCC *n* = 7) held negative sentiments toward the CMPHE, urging that it is outdated and does not address present higher education realities. A UC CEO highlighted this, commenting,

> The California Master Plan for Higher Education was never fully implemented. Like Democracy it's flawed in many ways. The systems that are supposed to be implementing the California Master Plan for Higher Education aren't implementing it very well. The lack of seamless articulation doesn't make sense. We get in our own way. (145A, p. 1)

Another CCC president suggested that parts of the existing CMPHE need to be rewritten and the remainder needs to be enforced:

> We need to rewrite the educational master plan. It's broken; it's antiquated. And there are parts of it that are just ignored. So, rewrite parts of it, follow other parts of it, and you know, revitalize California. But we don't have, we haven't had a visionary governor. I mean, a visionary governor would come in and with that as one of the very first priorities, and he would say, you know here are the legislators who are going to take it on, and here's the new chancellor of the UC system who's going to be my partner in this, and they're not going to stop in anything. (114C, p. 21)

> Two CCC presidents believed that the original intent of the CMPHE was not to increase

access, but the opposite, to maintain racial and social structures. As one CCC president shared,

> Several years ago, several colleagues and I analyzed the document [CMPHE] as it stands today and fully believe that the document is a perfect example of institutional racism. And it's a perfect document for institutional racism because the University of California per pupil spending is nearly double the amount of a community college. Well, if you look at this traditional student who goes to the University of California, they're upper middle class, if not a wealthy student. And that's not to say they don't serve low-income students, but by and large, the majority of students who access the University of California are coming from affluent families. By and large, the students who access a community college are coming from nonaffluent families. Well, if we continue to fund the University of California at a higher ratio, then that means the state is funding social reproduction … the process is broken. Well, I will say it's not broken, it's actually working as it was intended to work. Which means we're limiting the access to higher education and bachelor's degrees for primarily Black and Latino students, poor Whites, veterans, so on and so forth, disabled students. (129C, p. 11)

Another CCC president agreed, stating, "I actually believe that the whole California Master Plan for Education is set up to maintain the social structures to keep the poor and disadvantaged where they are and to keep the privileged where they are" (120C, p. 15). The same CCC president added, "We mistakenly say that community colleges, we take the top 100%. we actually take the bottom 100% because the top ones almost always go to UC and then maybe to CSU, or some Ivy league college" (120C, p. 16).

Deficient Intra and Intersegmental Collaboration

Nearly half (UC $n = 4$, CSU $n = 4$, CCC $n = 14$) of California public higher education executive leaders identified intersegmental relationship building and collaboration as one of their top three challenges or areas of opportunity. Of the 22 suggestions, six participants (UC $n = 2$, CSU $n = 1$, CCC $n = 3$) referenced increasing collaboration with high schools, six CCC presidents ($n = 6$) referenced increasing collaborative efforts with local private universities, and the remaining suggestions pertained to 2-year and 4-year collaboration (UC $n = 4$, CSU $n = 2$, CCC $n = 12$). The main focus of increasing intra and intersegmental collaboration is to streamline articulation (UC $n = 5$, CSU $n = 2$, CCC $n = 12$), "to reduce course repeats and unnecessary units" (145A, p. 2). While various online tools exist to outline university and major admission requirements (e.g., ASSIST, UC pathways, UC pathways plus, UC TAG, CSU ADT, individual campus websites, etc.), they are disparate systems. Further, these systems do not provide articulation information for every possible transfer scenario/major/school.

In additional to streamlining academic pathways and intra and intersegmental articulation, participants (UC $n = 1$, CSU $n = 2$, CCC $n = 4$) talked of the need to integrate technology and share data to track students' movements. A UC CEO identified the need to

facilitate "collaboration and innovation" (134A, p. 14) regionally amongst intersegmental

partners, including,

> Data sharing, and honest data sharing about student success. So that we can track students. We can know what they're doing. If they dropped out of [UC] do they reemerge at a community college or at a CSU in a different major? (134A, p. 15)

A CCC president elaborated on the need to leverage technology to streamline student

experiences:

> Why are we not talking about co-enrollment opportunities and reverse transfer opportunities for students by leveraging our technology in a way that allows transparency for our campus, our counselors to see what's happening across these systems? And for students to be able to have an experience across systems before they even transfer. And so, I think there are some missed opportunities that we have to close the gaps for students, and not have a student start over again. Meaning that I now have to go through the whole orienting process of higher education at another institution if I choose to start a community college first. (143C, p. 14)

A different CCC president shared similar concerns:

> Our systems here in California I think just create more challenges for students. I just wish that our systems were a lot more aligned, and they were just more streamlined in terms of processes, and information, and data you know that's shared between our systems. (131C, pp. 13-14)

> When discussing ideas for improving California academic pathways, one CCC president

poignantly stated, "[We are] in a system that was designed to be integrated, but we have not

actualized since [inception]" (100C, p. 15). The same president also believed, alignment needed

attention on multiple planes,

> Alignment across the board, meaning what is expected in the industry that is aligned with what we teach at the baccalaureate level and what we teach the community college level, and even the high school level. I think we could do a little better on aligning all of our systems and be more proactive on the expectations every step of the way, so our students are more aware of what to expect once they get to a particular point. (100C, p. 4)

Sharing similar sentiments, A CSU president identified advising as the number one issue

inhibiting baccalaureate completion:

> I think advising is a huge problem. I don't think we have systems that are clear, students can really see their pathways and understand you know how it fits into the broader goal. So, I think we have to think about creating a real pathway journey for students so that they can see it from beginning to end. (141B, p. 10)

While this president identifies advising as the number one issue, the broader context of their statement points to larger structural issues regarding clear academic pathways as they relate to careers. Is this the onus of individual academic advisors, or faculty to create consistent program requirements across the state? And where can technology be leveraged to aid in seamless, transparent, and accurate pathway guidance for students? Advising is discussed in greater detail in the next section as an institution-level theme.

Student success metrics suffer with intra and intersegmental inconsistencies such as campus impaction (which results in increased selectivity and admission redirection to out-of-area campuses), complex and varying admissions requirements, lack of common course numbering, and inconsistent articulation. A CSU president suggested that faculty are not aware of the broader context and how curriculum decisions at the college/university impact student completion and transfer trajectories. So, it's not that they are maliciously and intentionally creating roadblocks to student success, but more so that they are experts in their discipline; general education, graduation, and/or transfer admission requirements are not part of their expertise, so they need to be educated to become part of the solution. Two CCC presidents also spoke of this, one sharing,

> When you have programs and faculty who in the interest, in the lens of supporting students, might inadvertently put in a pre-req prep course that's supposed to help them right at the next level, and then before you know it, you realize that you've stacked not one, not two, but sometimes three of these quote unquote helping courses before they get into key areas … [these classes] that the faculty had put in a different steps to quote unquote help students, actually served as barriers where they could not complete in 2 years. And so, sometimes in the interest of helping students, we put either some curricular or academic supports that actually serve as barriers and detractors for completion. (133C, p. 14)

As a CCC president shared, faculty don't always understand how their curriculum decisions negatively impact students (i.e., articulation issues, course offerings/bottleneck issues, etc.), which is why counselors should always be included in curriculum conversations because they face these challenges head on with students every day.

The Role of Faculty

All participants were asked to describe the top three challenges they face as the CEO of their respective campus. While fiscal concerns and the global pandemic were at the top of the list, several participants also commented on faculty resistance to change (CCC $n = 6$), the power that faculty have in California (UC $n = 3$, CCC $n = 6$), and the importance of obtaining faculty buy-in (UC $n = 1$; 107A). These results align with those found by an American Council on Education (ACE, 2017) study, in which 45% of college presidents surveyed identified faculty resistance to change as one of their top leadership challenges. A UC CEO believed that cohesive statewide articulation will never happen because faculty control curriculum decisions. Furthermore, six CCC presidents also suggested that because of faculty resistance to change, mandating change through legislation seems to be the only solution. A CCC president reiterated that intersegmental communication, technology, and planning pieces need to be legislated to "force our hands" (143C, p. 14). Five participants (UC $n = 1$, CSU $n = 1$, CCC $n = 3$) also made more general statements about the importance of gaining constituent buy-in, not necessarily calling out faculty specifically.

A CCC president with prior higher education work experience outside of California shared that in California, faculty hold more political power as a result of collective bargaining, and therefore are more resistant to change. They elaborated,

Mississippi, South Carolina—there was not collective bargaining. And if you asked faculty to do something, then it was their job to do it … we weren't going to discuss it and negotiate it, it's your job. And so, after I left those positions it was really challenging for me, because at that point, I was, even though I was on the student services side, it was really challenging for me to walk into institutions where you know that … things need to be done, but people say, "That's not my job. I'm not doing it." Or "I don't have to do that." Or "I'm not going to do it unless you bargain it and unless you pay me more money." It blew my mind. (111C, p. 6)

Another CCC president shared their colleagues' experiences as higher education CEOs in other states:

Getting the faculty to move or to adopt new ideas or new approaches can be very, very political and full of mines. So, the way I think of it is in California community colleges, the faculty have tenure, full-time faculty, they have union protection, and then they have the senate control of certain areas. And that's a lot of power. I feel like I have about 40% of the authority and 100% of the responsibility to try to get things done. I once did a reference check on an applicant with someone, a president who was in Kansas. And he had been in the California system prior to that, and I asked him what's it like being in Kansas? He said, "It's like I'm God here. I tell them to do something, and they do it. You know an at will state and a very different approach to community college." And I was talking to a president from Texas who was making the rounds on how successful they've been at turning their graduation rates, you know doubling them, and that sort of thing. And he was saying, "Well, I decided in January, and we switched everything to 8-week segments for fall and we're doing mostly open educational resources, so they don't have to try to buy books." And I said, "How'd you get the faculty to agree to that?" "Well, they don't have to work here if they don't want to make the change. You know it's just a whole a very different approach." (105C, pp. 9-10)

On the topic of streamlining intersegmental curriculum and transfer pathways, a CCC president shared their frustration with faculty:

I don't think that our systems necessarily put enough pressure or incentive to [engage in intersegmental collaboration]. Because then you get into the "Well yeah if you pay me, I'll go sit in a room and talk that out with some people." And there's some fairness to that. And there's also, but y'all are claiming the curriculum redesign is in your wheelhouse, so take it up then, right. Like why do I need to pay you if it's part of your 10 plus one purview? (133C, p. 21)

A different CCC president shared similar frustrations, suggesting that forcing change through legislative action was the only likely option:

I think that's the only way it'll happen. Because some people are so self-serving, that God forbid you have to update your syllabus or your course outline. It's the same content, maybe modified slightly, but, like I said, these courses are not that radically different. And so again, I love participatory governance, I love academic freedom, but not at the expense of students and student success. (115C, p. 24)

A UC CEO shared, "The challenges are getting faculty buy-in even on the most obvious issues. Whatever the issue is, it's just like your teenagers at home they're always disagreeing" (107A, p. 2). This same CEO suggested later that faculty have too much power over program development and graduation requirements, complaining that creating courses with more than two levels of prerequisites (sometimes up to four levels) and requiring more than 180 quarter units to graduate (sometimes up to 220) is unecessary and prevents students from graduating in 4 years (107A, pp. 11, 12-13). The same CEO added, "I think we have to have a more rational view of what it means to have a bacclaureate degree and not believe that that's the end of all degrees and there's nothing more you can do after that" (107A, p. 11).

When reflecting on impacted programs, the same UC CEO said, "We do have some impacted programs, but we are cutting down the number of those impacted programs because I think that declaring something impacted is like arbitrary. It's the faculty flexing their muscle, which is not a good thing" (107A, p. 10). A CSU president shared a similar opinion viewing impaction "as a strategy to be able to control enrollments and then kind of cherry pick [students] the same that UCs do" (139B, p. 8). These CEO comments are examples of leader's attempting to disrupt the social construct of merit and the racial neoliberalism cycle (refer to Figure 18).

Student success metrics suffer with intra and intersegmental inconsistencies such as campus impaction (which results in increased selectivity and admission redirection to out-of-area campuses), complex and varying admissions requirements, lack of common course numbering, and inconsistent articulation (a result of institutional faculty control). When asked what strategies

California public higher education executive leaders use to address faculty's role in the above-mentioned barriers, the use of financial levers was suggested by four participants (UC $n = 1$, CSU $n = 2$, CCC $n = 1$), and highlighted by a UC CEO as follows:

> Because of our shared governance model, they have complete authority and they see no reason why they should change anything. So the only thing I can do is start squeezing resources, so that they cannot just arbitrarily create the courses for new requirements. (107A, p. 12)

Resources that executive leaders can leverage include access to research funds, lab space, and reduction in course load. A CSU president spoke of "incentivizing faculty with money to collaborate with each other" (132B, p. 7). This same president has a vision for integrating different disciplines together, noting,

> The university works in very siloed manners. Most professors are teaching their field, and they don't see how their field ramifies dramatically to other fields. And they don't realize that the field is one tool in a multiple kit of tools that our students will have once they graduate. So, I want to incorporate more fields together to create more synergy between them. (132B, p. 6)

When asked how the UC managed to entice faculty to participate in intersegmental faculty collaboration to streamline and develop 2 + 2 transfer maps, a UC CEO stated that first communicating to UC faculty how impactful undergraduate education is to the university's financial vitality. Understanding this helped create more faculty buy-in. The CEO added, "Not a lot, not a lot of buy-in, but I think there's enough that we can usually find one faculty member per department who is excited about this" (124A, p. 11). When asked the same question, a CSU president shared mixed feelings toward faculty, saying:

> You just force the conversation among at least at the administrative level. But I will tell you this about faculty, they get a bad rep. There are some that are absolutely obstructionists. Just as there are some absolute obstructionist staff, students, and administrators. But I find, for the most part, if you spend the time to educate the faculty that they don't know the bigger context. They know their discipline. They're spectacular historians and teachers and scholars and they may even know general education a little bit. But they don't have the perspective of someone who's looking at the whole campus.

And I have found when you spend the time to use shared governance in collegial and

collaborative ways, faculty almost always end up doing the right thing. (137B, p. 18)

This CSU president added, "I think it's going to have to come from leadership saying this is

important and then putting people on there to help educate faculty. And we shouldn't give up

trying. We're too quick to give up" (137B, p. 19).

A few participants who had prior higher education work experience outside of California,

or have spoken to out-of-state colleagues, discussed the difference in ed code regulations,

participatory governance, and faculty union power. According to one CCC president, in

approximately half of states, faculty are more "at will" employees and participatory governance

is not enshrined in their state education code. In 1989, California passed AB 1725 (Faculty

Association of California Community Colleges, 1988), which established CCC faculty $10 + 1$,

requiring faculty purview and oversight on the following items:

1. Degree and certificate requirements
2. Curriculum, including establishing prerequisites and placing courses within disciplines
3. Grading policies
4. Educational program development
5. Standards or policies regarding student preparation and success
6. District and college governance structures, as related to faculty roles
7. Faculty roles and involvement in accreditation processes, including self-study and annual reports
8. Policies for faculty professional development activities
9. Processes for program review
10. Processes for institutional planning and budget development, and …
11. "Plus one": Other academic and professional matters as mutually agreed upon between the governing board and the academic senate. (Academic Senate for California Community Colleges, n.d., p. 1)

David Morse (2017), Barstow College faculty, reflected on this momentous legislation sharing,

"Despite the many difficulties involved with its passage and implementation, the bill helped to

create perhaps the most inclusive system of governance enjoyed by any system of higher

education in the world" (para. 18). It should be noted that the role of faculty in California higher

education has crossover in both the macro (systemic) and micro (institutional) levels. The power afforded to faculty via legislative measures occurs at the systemic level, but operationally occurs more so at the micro site-level, where faculty can leverage said power to stall improvements on a number of issues related to student access, retention, and success.

Institutional Practices That Affect California Baccalaureate Access and Completion [RQ1]

When asked for the top three barriers that inhibit baccalaureate access and completion for California students, participants identified several institutional or site-level barriers. Three overarching themes emerged on the topic of institutional barriers: (a) the rigid historical nature of higher education which operates under a compliance model ($n = 9$) creates (b) bureaucratic roadblocks ($n = 12$) and (c) inefficiencies ($n = 26$), which reduce institutions' ability to meet the diverse needs of neo-traditional students. A participant poignantly noted, "We can also do better in terms of just our actions, our behaviors our policies, our practices that really demonstrate and communicate to our students that we care about their success" (131C, p. 5).

Rigid Historical Nature of Higher Education (Compliance Model)

Five participants (UC $n = 1$, CCC $n = 4$) perceptively observed, California higher education is stuck in a tradition of rigid practices and processes. A CCC president shared, "Oftentimes the rigidity that we have had as institutions, if we continue to remain rigid then we're going to break" (111C, p. 5). A UC CEO lamented, "I think that colleges and universities are stuck in a in a structure that wasn't designed for today's students, or today's economy, or for today's cost of education" (106A, p. 4). A CCC president shared a similar sentiment, noting, "I think if we continue to look at our educational system, the way that we have historically we're not going to do the things that meet the demands of our students and our communities in 21st century" (143C, pp. 17-18). A CCC president asked, "If you deal with the number of first-

generation students that we deal with in the state, how do you celebrate that but then create systems where you know they don't know what to do" (103C, p. 17)? The same president elaborated,

> I think one of the pitfalls of academia, is our rigidness to tradition. And so, this is the way we've always done it, and this is the way we have to do it, I think puts us in a place where we don't then adapt or are unwilling to adapt to be current and contextual as it relates to creating a pathway and platform … think one is our matriculation processes and our outside-of-classroom support processes are very rigid in terms of making the student conform to the institutional way of doing business versus the institution conforming to what the student needs in order to contact them, or relate to them, or work with them. I think the second is primarily in the classroom. I think academically and curricularly we don't adapt our curriculum to the students, and so we try to make students learn in ways that are antiquated. (103C, p. 5)

The same CCC president added that public higher education's rigidity has created a niche opportunity and for-profit institutions to maximize on by offering flexible learning options for students. A different CCC president shared a similar opinion, noting,

> CSU and UC, most of the programs are relatively traditional. And I don't think that works for many of our students transferring and I think that is leading to a waste on academic potential, human capital that we could be developing. Many of our students that graduate they cannot access a CSU or a UC in a traditional way; [they] are incredibly talented and bring a lot to the table, based on their work experience and just life experience in general. If we had a better system, it would allow an additional pathway, I think we could see some superstars coming from a nontraditional route. (100C, p. 3)

A different CCC president shared a similar argument regarding out-of-state universities:

> We have you know large universities like Arizona State and Southern New Hampshire. Southern New Hampshire added 35,000 students over the past year, ADDDED, that's new students. So, they're at 180,000 students. Why? Because it's simple. Why? Because they have a, your progress is tracked, and you've got an advisor on top of you throughout your entire experience. So, if we don't figure out how to get out of our own way, you know, we're not going to meet the needs of our society, and our workplace in California. And the way to get out of the way is to reduce the complexity of transfer. (114C, pp. 19-20)

In addition to the historically rigid nature of public higher education institutions, six participants (CSU $n = 1$, CCC $n = 5$) also commented on the compliance model that they operate under. A CCC president elaborated on this concept:

> I think we are still operating in a compliance mode in higher education when we provide the information. We do not communicate well. We try to check the boxes, and then we resort to this legal language, or we make sure that we are satisfying all the Title V requirements and all ADA requirements, and variety of requirements. Satisfying requirements is not necessarily good communication. Communication has to be crisp; it has to be timely; it has to be easy to understand. It's not necessarily to give a 1200-page catalog or something of that sort to a student and say you know everything is the kitchen sink, find out what you need. It has to be timely. It has to be effective. And it has to be short and sweet. (110C, p. 22)

A different CCC president would agree, noting, "My role is really right to make sure that we are in compliance, right? We have an obligation to our system to comply, we have an obligation to our taxpayers to comply. And so, there's a compliance element to it" (143C, p. 5).

Bureaucratic Roadblocks

Participants illuminated several institutional site-level barriers that can present unnecessary roadblocks to student retention and completion, including

- different application systems for freshman and CCC transfer-intending students to navigate which encompass different steps and timelines and multiplicity intrasegmentally (e.g., UC dual admission application, UC transfer admission planner/TAG, UC regular application, varying application deadlines by CSU campus, varying CSU supplemental applications, etc.)

- complex multistep matriculation processes (e.g., placement, prerequisite validation, foreign language assessments, orientation, advising/counseling, registration, financial aid applications, etc.) that often bounce students around to various offices on campus, leaving multiple frustration and stop-out points for students

- various housekeeping barriers:

  o withholding access to course registration, access to transcripts (for employer and/or transfer purposes), or withholding diplomas for nominal fees owed to the school

  o additional registration holds not related to financial account balances certificate, degree and general education certification application procedures and deadlines that students are not aware of

A CSU president shared their personal experience about helping their children navigate the complexities of the CSU application process. Their child was denied admission and then admitted after they called on their behalf to sort out the erroneous application error. They noted, "Like what if you don't have a mom with a PhD who's a vice provost? I think we should all spend a little time trying to be a 17-year-old or a 20-year-old and apply to our own schools" (137B, pp. 20-21).

When asked for the top three barriers that inhibit baccalaureate completion, a CSU president commented,

> We have a lot of administrative barriers. Whether it's holds that we put on students, whether it's requirements of what classes you can take, when you can take them. I think those are serious barriers and really hold students back. Sadly, I think that sometimes we don't believe in our students. And if you don't believe in them, how are they going to succeed. (125B, p. 13)

Another CSU president was compelling in their comments surrounding bureaucratic roadblocks:

> I became an administrator in recognition of the institutional blocks to student success. As a junior faculty member, I kind of drank the Kool Aid that, oh students don't succeed for their own reasons—they don't study hard enough, they don't spend enough hours studying outside of class, they bring mental health problems to the class. It was all them. It was never us. And then I ended up working as an academic advisor while I was a junior faculty member. It was the best thing that ever happened to me. And I found out holy crap, students have all those issues. They have financial issues, they sometimes have mental health issues, they have family challenges. Then they come here and we just put up barriers all over the goddamn place and say good luck finding them, getting around them. I have little patience for institutional barriers, and they still exist. … And when a

student who attends the CSU or California community college stumbles they often can't get back on the racetrack. You know, a kid that is at Stanford and stumbles, somebody's going to help that kid get back up and get back on that racetrack. … They say, "Oh, it must be me, I'm not ready for school," and they leave. (137B, pp. 7-8)

A CCC president noted the work that has been done to transform institutions into student-ready schools:

> There's a lot of the literature and the research about student-ready colleges versus college-ready students. And I think things like the implementation of an AB 705 and implementation of guided pathways framework, all of that helps to support that we're doing the business, we're doing our work to review our policies, our processes, our procedures to make sure that we're not unintentionally setting up barriers for students related to just trying to access higher education. (133C, p. 7)

A different CCC president shared that their new VP of student services was taking a systematic review of all the forms a student may encounter in the Admissions or the Financial Aid Office and discovered that there are over a dozen different forms, some of which the staff could not explain the use of. The CCC president added, "We make things so hard. We are such bureaucrats and there's no need for that" (115C, p. 23).

Institutional and Systemwide Inefficiencies

Many participants discussed institutional and systemwide policy and practices that produce unnecessary barriers for students. Inefficiencies cited that reduce student retention and success and/or increase unnecessary units are the result of inaccurate and untimely advising, unclear pathways, course prerequisite and scheduling bottlenecks, excessive degree requirements, and previous remedial education structures.

Four participants (UC $n = 3$, CSU $n = 1$) shared concerns over present course scheduling practices. A CSU president was compelling in their comments surrounding scheduling practices:

> Our schedule of classes, while much better than it used to be, it's still too driven by what faculty wants to teach and when they want to teach it and not by what students need. Our curriculum is overly complex. … Here, sometimes you need a flow chart to understand the prerequisites, the co-requisites. Oh, it's just a nightmare. (137B, p. 8)

A UC CEO believed that we apply "our own lens of privilege to what higher education should look like" (145A, p. 1), such as instructional formats and faculty-driven scheduling. These sentiments were shared by another UC CEO who called for better utilization of classroom space, not just based on faculty desires, but "how often the courses are offered has to be looked at. I think the classroom utilization should be more than 6 hours a day. Everybody wants to teach between 10 a.m. and 4 p.m" (107A, p. 13).

On the topic of remedial education, five participants (CSU $n = 3$, CCC $n = 2$) shared that removing remedial course options from higher education was a big step in the right direction for improving student retention and success metrics. Once CSU president shared the reasoning behind the removal of remedial courses at CSU,

> We've made other changes in just policies or practices we had that we realize discouraged students. You know at a system level we got rid of remedial education. Because students, you know, who finished freshman year and then didn't have any credits, because they were all in remedial courses that bear, bore no credit were highly likely to not persist. (112B, p. 8)

Another CSU president passionately believed,

> The best thing that the CSU system has done is do away with the developmental courses. Those courses were just, they were holding people back. If you started in one of those courses, you were never going to, well, never is an exaggeration, but … odds were stacked against you. And I think that doing away with those courses has made a tremendous difference. I couldn't have the graduation rates that I've got now without doing away with that. (125B, pp. 13-1')

A CCC president commented on faculty resistance to change and long overdue elimination of remedial education practices,

> I'm not a big fan of change by legislation, mandatory change by legislation, and what happens within our colleges. But I've cited two examples where it actually paid off—the ADT was one and this legislation AB 705. I think that, you know, we had been learning over a period of time what a labyrinth those remedial classes were for students, how long it would take them to get through them, how few of them would actually complete and end up transferring to university or even completing college level math or English. But

there were so many institutional and collective bargaining forces that sort of kept our structures in place that it took that legislation to sort of shake us up and force us to get to get rid of that dinosaur. (101C, p. 15)

Another CCC president perceptively observed, "We have more of an assimilation expectation, that is, those students should adapt to the way we function instead of the reverse. We need to adapt our processes to the skills and abilities and potential that diverse students have" (108C, p. 14).

The Role of Counseling and Advising

Executive leaders across all three segments (i.e., UC, CSU, and CCC) mentioned the additional needs of neo-traditional students. A CCC president identified this as a top barrier to baccalaureate completion, stating,

> I think, as we get older and the longer we are in higher education, the less removed that we are from the realities of the new generation of students and the greater the effort that we have to make to be aware of those realities and give them the level of relevance … so, in many instances, I think we could also do better on the environment that we provide and the support that we provide to students in our campuses as we understand their realities. (100C, p. 5)

A different CCC president believed that neo-traditional students require "high-touch" and "wrap-around support services" (140C, p. 5) that propel students toward their completion goals.

When asked what systemic and institutional barriers inhibit baccalaureate completion, improving the clarity of academic pathways (UC $n = 4$, CSU $n = 3$, CCC $n = 16$) and accurate and timely advising (UC $n = 5$, CSU $n = 3$, CCC $n = 1$) were cited as top areas of opportunity for improvement. Four participants also identified the student mental health crisis as one of their top three challenges (UC $n = 2$, CCC $n = 2$). Undecided students are more likely to swirl or drop out, and participants believe neo-traditional students require more guidance. A CSU president elaborated on this:

I need to have more advising staff. Our, our advisors are probably making three phone calls to a single student who's at risk, compared to one phone call at another campus, because there are so many things going on in our students' lives. (126B, p. 17)

Two participants also discussed the importance of collaboration among instructional and counseling faculty. A CCC president shared that faculty do not always understand how their curriculum decisions negatively impact students (i.e., articulation issues, course offerings/bottleneck issues, etc.), which is why counselors should always be included in curriculum conversations because they face these challenges head on with students every day. The same CCC president noted how systemically, there are additional barriers embedded into the institutional culture that impede faculty-counselor collaboration:

Now politically [it] depends on where you're at. I've always said there's this pecking order, which drives me absolutely NUTS with tenure track faculty. Which is you know, if you teach in the disciplines, in the general ed disciplines, you know you are the supreme being faculty member. And then CTE is kind of beneath that, and then it's counselors and librarians who are, your faculty when we want you to be part of our negotiating unit, but otherwise you're really not teaching faculty. So, you're kind of in a different place, so you can't talk to us about curriculum because you don't know. So, there's this this kind of craziness that's in our system, this you know, academic snobbery which really doesn't belong there. And I think looking at the way that we communicate about these things so that we're using a student lens to identify where those hurdles and problems are when we're developing the curriculum. But do it in a way where faculty don't feel like, you know, their rights are being infringed upon. But it's just bringing a different perspective for them as they're developing their curriculum to understand how their curriculum can create those hurdles for students. (116C, p. 23)

Another CCC president discussed archaic and false boundaries that are common to CCC cultural climate, and how this impacts counseling services and student achievement:

The boundaries of laws that differentiate and kind of sort people differently. So, say, for instance the 50% law that counselors and librarians are on the quote unquote wrong side of the 50%. Very problematic. And especially if you look at student success, the data is there for counseling. … So, boundaries like that, that sort people, that categorize people, that doesn't create that level of flexibility for colleges, and falsely. You know, like seriously, what makes a librarian and a counselor not on the right side? It's just a false way of connoting things. That is elitist in thinking somehow more resources to instructional faculty thereby, somehow that that lowers classroom sizes and therefore creates more student achievement, versus you know librarians, counselors, psych services

counselors, academic counselors, general counselors, etc., being a critical role in that too. … Those types of false boundaries, false categorization of people, false categorization and even between classified and faculty etc. is kind of problematic. (130C, pp. 12-13)

Societal Determinants That Affect California Student Baccalaureate Completion [RQ1]

Many California public higher education executive leaders commented on the changing

student demographic that has occurred. A UC CEO noted,

But 57% of our students are what I call new generation students, so they fall into one or more of the three categories of lowest income families, Pell Grant eligible, first generation, and or underrepresented historically in higher education. And so, we're very dedicated both to trying to help admit those students, help them graduate, and to help them achieve equitable educational outcomes as a group. (134A, p. 8)

A CCC president shared that 80-90% of their student population is first generation, and 80-90%

is Latinx. As the percentage of neo-traditional students continues to rise, the need to provide

specialized services to support their unique needs is evident. A CSU president illuminated this

challenge:

We have a very diverse student body, and so they just come with a whole different set of lived experiences and backgrounds and resources. And so, you know, trying to understand what their particular needs are. And then how do you step back and actually create something that serves everyone's needs? I think that's always a challenge. (141B, p. 3)

A CCC president shared similar sentiments, stating, "Our student body became suddenly

extremely diverse, it was divergent for a long period of time, but the diversity keeps on

increasing. Needs became very different for different student groups" (110C, p. 6). In talking of

transfer-intending students, a CCC president suggested that "they may not have the additional

supports that they need to make it to the finish line" (109C, p. 8). Several other participants

commented on the additional needs of neo-traditional students, including a CCC president, who

shared, "It's hard, because we have students who need so much more and there's less money to

provide the so much more that's critical, outside of the federal relief dollars" (133C, p. 3).

In talking about the shift of admitting more neo-traditional students, a UC CEO asked,

"What sort of shift does that mean for support systems that are necessary on campus for a

different makeup in our student body" (118A, p. 11). It is evident that UC CEOs believe that

underrepresented minorities "need a different class of infrastructure than the traditional

population" (107A, p. 5). This was a concern of several UC CEOs as is evident in the following

comment:

> I think there are a population of them that don't feel like they've got adequate resources
> to be successful when they're on our campus. And so, you know understanding what
> those are and shifting resources, especially in this environment where resources are slim
> everywhere, because of what we've seen happen to our budgets. And then, so if we're
> shifting resources, you know one population is always going to come up short. (118A, p.
> 12)

A CSU president correlated diversity with lack of college preparedness, stating that diversity is

"a big plus but it's also a challenge" because for the most part they are "not fully prepared to take

on the rigor of a university level education" (132B, p. 4). This CSU campus student body

includes 65% first-generation students and 95% historically marginalized. The CEO outlined the

three classes with highest failing rates (math, chemistry, and writing) and the importance of

addressing these "gateway" classes that impede retention and completion. outlining programs

developed to address this, including seniors tutoring freshman and more focused advising.

In addition to the systemic issues surrounding existing student financial aid structures,

participants identified several student micro and meso barriers that can inhibit neo-traditional

student baccalaureate access and completion. The main themes revealed by participants, included

neo-traditional students' (a) lack of social capital to navigate the complexities of higher

education systems (UC $n = 3$, CCC $n = 6$); (b) knowledge barriers regarding the value of higher

education, admissions requirements, and the net cost (UC $n = 2$, CCC $n = 6$); (c) are more likely

internalize institutional barriers and give up (UC $n = 2$, CSU $n = 4$, CCC $n = 3$); and (d) have

increased basic needs that impact their retention and success ($n = 18$), such as food (CSU $n = 2$; CCC $n = 4$), transportation (CCC $n = 3$), housing (UC $n = 2$; CSU $n = 2$; CCC $n = 8$), textbooks (CCC $n = 3$), technology (CCC $n = 2$), childcare (CCC $n = 3$), healthcare (CCC $n = 1$), and mental health services (UC $n = 3$; CCC $n = 3$).

Several participants indicated that neo-traditional students often lack social capital (UC $n = 3$, CCC $n = 6$) and encounter knowledge barriers (UC $n = 2$, CCC $n = 6$) to navigate the complexities of California public higher education systems. A CCC president placed blame on K-12 schools, commenting, "I think students' dreams die there alright when we talk about the number of first-generation students, their dreams die early on, when they're told they're not college material, when they're told that they're not going to make it" (103C, pp. 19-20). The CCC president elaborated,

> I've run across so many different places where the barrier was the high school counselor who did not even go to community college and whose ego was all about the numbers of students they got into the UC. Which if that's the case then there's a whole population of students that they're not even looking at. (103C, p. 20)

A different CCC president empathized with first-generation students, stating,

> Going to college, community college, as well as to a university, it's labyrinthine if you haven't had you know a lot of experience or exposure. I've been in higher education in the community college system for 30 years and I've taught at the university in law school level before that, and I still would be a little insecure in enrolling for classes at a college or university. So, I know that for first-generation college students, particularly if they're not, if English is a second language, it's daunting. (101C, p. 4)

For the students who do make it to college, when faced with bureaucratic roadblocks and other personal setbacks, neo-traditional students may end up internalizing this as not being college material and drop out. A CSU president identified the link between social capital and sense of belonging, noting,

> Critical among that is a sense of belonging, so a lot of students, particularly students of color, who aren't sure that they belong in higher education. So, if I have a White student

who fails a test, they go, "I need to study harder," their attribution is always about personal empowerment. If I have a Black student who does that, who maybe is first generation and also Pell is eligible, they're calling home to say, "Mom I just failed a test." And when you have parents at home, who [are] first generation, haven't been to college themselves, they go, "Well you know, maybe college isn't for you." You know they don't think about … you have to intensify, go see the advisor, go get a mentor. (139B, p. 13)

A few participants recognize this and suggest the institution bear the responsibility of creating a sense of belonging and confidence for all students, as evidenced in the following CCC president's statement:

And many of our minority students and our first-generation students bring that baggage, and part of our job, and I think it's our responsibility because it's an equity and a social justice issue, to help disabuse them of that notion. And if they don't have the cultural capital or even the emotional wherewithal, part of our work is to help them find it so that they can really reach their dreams, whatever that is. (113C, pp. 20-21)

Along with a lack of social capital comes the inability for neo-traditional students to advocate on their behalf. Therefore, academic advising is even more imperative. A UC CEO who was a first-generation college student illuminated this by saying,

I think academic advising is based upon the notion that the student has some knowledge of college and what college is about. There are words that we use and acronyms that we use in a society that is predominantly first generation that causes some barriers to students' progress toward their degree. I was a first-generation college student in my, not just my immediate family, my entire family. And there were assumptions that I knew the meaning of certain words that weren't a part of my vocabulary. (106A, p. 3)

A CSU president shared the same thoughts, suggesting that institutions must increase the number of advisors on staff since neo-traditional students require more advising support services. Additionally, a CCC president commented on the lack of college-going culture that many first-gen students face:

I do think that there's you know the concern about first-generation students and the barriers that they face of maybe not having the college-going culture within their family or their network of their social network. That's a barrier that requires a lot of work, and good advising, good counseling, good mentoring, peer mentoring, social supports in the college. (121C, p. 2)

Improving Baccalaureate Access and Completion [RQ1]

The highly publicized baccalaureate degree shortage, first published in 2015 from the Public Policy Institute of California (PPIC; Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al., 2015) may have spurred a statewide focus on improving baccalaureate completion rates and reducing equity gaps. Shortly after the initial PPIC report was published, in 2016, CSU extended and expanded their original 2009 graduation initiative, incorporating more ambitious goals. Three years later, in 2019, UC followed suit, publishing an executive summary to the UC Board of Regents, titled *Eliminating Gaps in Timely Graduation by 2030* (UCSF, 2019). As highlighted in Chapter 2, additional initiatives to reduce equity gaps and move the needle on student success included English and math placement reform and removal of remedial coursework (i.e., CSU Executive Order 1110, AB 705, AB 1705). Corequisite support courses were developed to ensure that student persistence and completion rates were not impacted by several layers of below college-level remedial coursework.

CSU Graduation Initiative 2025

In 2009 CSU launched a systemwide graduation initiative to improve 6-year completion rates and halve first-time freshman achievement gaps by 2015. Based on the success of exceeding initial goals, it was extended through 2025 with more ambitious targets. Over the last 6 years, CSU campuses have made strides in improving their 4- and 6-year graduation rates. This is the result of the ambitious objectives outlined in GI 2025:

- Increasing the 6-year graduation rate for first-term freshmen to 70%

- Increasing the 4-year graduation rate for first-term freshmen to 40%

- Increasing the 4-year graduation rate for transfer students to 85%

- Increasing the 2-year graduation rate for transfer students to 45%

- Eliminating equity gaps (CSU, n.d.-b, 2016)

Since the launch of GI 2025, CSU FTF 4-year graduation rates increased from 19% to 33% and

6-year graduation rates increased from 57% to 63% in 2020-21 (CSU, 2021b). Similar gains for

CSU transfer students have also been documented (CSU, 2021b). In talking with eight different

CSU presidents, various strategies to achieve GI 2025 outcomes were revealed. CSU presidents

($n = 4$) spoke of summer bridge programs and high touch, high tech advising that campuses

introduced. Marketing campaigns encouraged students to enroll in 15 units per term (not 12

which is the full-time threshold for financial aid) and to engage in summer coursework. A CSU

president even engaged in parent outreach, sharing,

> I went to the parents in orientation and asked them how many of them have $15,000 extra dollars in their pockets right now, and I said, "If your daughter or your son only takes 12 credits, it just cost you $15,000 because you're going to be here an extra year." And then we handed out a pledge and asked them to sign the pledge that their sons and daughters were going to take 15 hours. And they did. (125B, p. 13)

Additionally, at some campuses, traditional registration practices were changed for new opt-out

methods that pre-enrolled freshmen students in 15 semester units for their first year. And

improvements in electronic advising tools were made to increase the accuracy of student

education plans. Some campuses even provided students scholarships for attending summer

school as it is not always funded by financial aid. A CSU president added, "We've been going

through a systematic review of our academic policies" (141B, p. 13), such as providing students

with early warning when they need to repeat a course and creating nudges to keep students on

track by use of peer mentoring to "get ahead of the problems that might emerge that might cause

a student to stop out" (141B, p. 13).

Additionally, campuses embraced the diverse needs of neo-traditional students by

opening new cultural centers and addressing students' basic needs, such as food pantries and

emergency housing. Because if your basic needs are not met, it will be difficult to focus on schoolwork. A CSU president shared,

> We've opened student success centers to address different populations needs, for Black students, for our Latinx students, for our undocumented students, our veterans, trying to make sure that we're speaking to the particular needs of certain students. And while those aren't academic per se, they're really important in connecting the students to people who understand them. (141B, p. 12)

Five CSU presidents also identified the need to address institution site-level bureaucratic and housekeeping barriers. A CSU president illuminated the impact of GI 2025 on noninstructional service areas:

> We had to change our culture to really focus on student success and use that as the lens through which we view every practice that we have. And not just by instructors, but by other parts of the university as well. You know, how does this process, this bureaucratic process, is it a hurdle, or is it facilitating students making progress and succeeding? (135B, pp. 12-13)

Another CSU president highlighted several housekeeping barriers that were identified and addressed, such as adding a longer grace period to pay off prior term tuition/fees so that students were able to register for subsequent terms during their priority registration date to get the classes and schedules they need. Another example of a housekeeping barrier remedied at CSU included a shift in procedure of no longer withholding diplomas or transcripts for small fees owed to the university.

Lastly, CSU presidents mentioned a few financial strategies, including changes to budgeting practices ($n = 2$), with a president stating that "any dean who came and had enough students to fill another section automatically got the money to add on sections" (112B, p. 8). CSU campuses were more intentional in identifying course bottlenecks that inhibit timely completion and therefore increased section offerings ($n = 2$). Additionally, faculty were provided

stipends (financial levers) to redesign hundreds of courses that had high withdrawal, D or F grades (*n* = 2).

UC Multiyear Framework to Eliminate Completion Gaps

On September 9, 2019, UC Office of the President released an executive summary to the UC Board of Regents, titled *Eliminating Gaps in Timely Graduation by 2030* (UCSF, 2019). Citing the PPIC's projected shortfall of one million bacclauretae degree earners in California (Bustillos et al., 2017; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al., 2015), the overarching goal of UC's multiyear framework was to "increase degree attainment and ensure that undergraduate and graduate degree recipients better reflect the diversity of the state" (UCSF, 2019, p. 1). While UC 4- and 6-year graduation rates are among the highest in the nation (UC, 2020a; NCES, n.d.-c), the executive summary highlighted some disparities in time to degree completion for Pell-eligible, first-generation, and historically marginalized students. The executive summary postulated that "eliminating graduation gaps will reduce the cost for UC's new gen students to get a bachelor's degree and help them enter the workforce sooner" (UC San Francisco [UCSF], 2019, p. 2). The report also identified that first-generation and transfer students are less likely to pursue graduate and doctoral degrees, which only further inhibits their economic trajectories (UCSF, 2019, pp. 2-3). This is probably a result of the additional student debt taken on by students who take longer to graduate.

Half of UC freshmen and three quarters of UC transfer students are first-generation, Pell-eligible or from a historically marginalized community (UCSF, 2019, p. 5). Additionally, 15% of UC freshmen and more than 20% of UC transfer students identify as all three (UCSF, 2019, p. 5). As such, UC suggested that the best way to meet the goal of adding 200,000 additional baccalaureate degree earners by 2030 is to improve graduation timelines for neo-traditional

students (UCSF, 2019, p. 1). While improvement goals varied for each individual campus (from

1-27%; refer to Table 6), systemwide, this includes increasing 4-year graduation rates by 8% for

UC freshmen and 2-year graduation rates by 13% for transfer students (UCSF, 2019, p. 3). The

UC multiyear plan outlined three overarching strategies to increase the number of UC

baccalaureate degree earners: (a) increase first-year retention, (b) address basic needs and

promote sense of belonging, and (c) expand undergraduate research opportunities to increase

academic engagement (UCSF, 2019, p. 1). While not outlined as one of the three overarching

goals, the executive summary also made note of the fact that prior UC research showed students

pursuing STEM degrees, especially engineering and computer science have lower graduation

rates. So, while, the labor market demands more STEM students in the pipeline, UC must be

careful in adding more STEM programs as it may negatively impact 4-year graduation goals

(UCSF, 2019, p. 12).

Table 6 – UC 2030 graduation goals disaggregated by campus and student population

2030 Goals	UC	Berkeley	Davis	Irvine	UCLA	Merced	Riverside	San Diego	Santa Barbara	Santa Cruz
Freshmen 4-year goal	76%	82%	78%	74%	86%	50%	75%	75%	80%	70%
Overall improvement	8	6	15	4	8	5	18	10	12	17
Pell growth	15	15	22	5	13	4	19	15	14	22
First gen growth	16	16	23	6	15	5	20	16	12	23
URG growth	21	27	24	14	19	5	19	22	17	24
Transfer 2-year goal	70%	76%	66%	58%	75%	60%	71%	70%	80%	70%
Overall improvement	13	15	11	1	8	8	14	25	13	14
Pell growth	18	21	13	9	10	8	14	32	16	17
First gen growth	14	17	9	4	8	8	13	25	13	17
URG growth	16	21	17	7	13	8	14	31	18	19

Source: Campus submissions

Note. From *Eliminating Gaps in Timely Graduation by 2030: Executive Summary*, Budget item submitted to the Regents of the University of California by University of California, San Francisco, September 19, 2019, p. 3 (https://regents.universityofcalifornia.edu/regmeet/sept19/b2.pdf).

The executive summary acknowledged that there are variations in equity gaps across the

nine undergraduate campuses, and therefore strategies to improve timely completion would vary

by campus. Campuses were encouraged to leverage and expand upon current site-specific

programs, and the report ended with a campus-specific plan for improving retention, research opportunties, basic skills, and sense of belonging. The researcher did not directly ask any questions regarding the UC multiyear plan to increase timely degree completion. Therefore, there are no direct quotes regarding specific strategies utlized by each campus since the plan was published in 2019.

Additional Opportunities for Improvement

All participants were asked, "If you had a magic wand, what federal and/or state policies would you like to see altered to increase the efficiency of baccalaureate attainment for California students?" Some participants provided one, while others provided multiple magic wand requests. Six prevalent themes emerged in response to this question: (a) financial aid reform, (b) re-evaluate historical norms and traditional practices, (c) state funding priorities and higher education tuition, (d) statewide articulation and transfer pathways, (e) baccalaureate programs at CCCs, and (f) other innovative strategies. These six themes are examined in more detail in the following paragraphs.

Financial Aid Reform. Across all responses to the magic wand question, the top response related to financial aid reform, including increasing Pell Grant payouts (UC $n = 2$, CSU $n = 6$, CCC $n = 2$), Cal Grant reform (CCC $n = 4$), state funding and financial aid for summer school (CSU $n = 3$), incorporating COLA into financial aid calculations (CSU $n = 2$), and revival of Perkins fixed interest rate loans (UC $n = 1$). A CSU president elaborated on the need to rethink financial aid formulas:

> The whole thing is ridiculous. So, it costs, let's say $14,000 a year to live in housing, to have a room and board. And $6,000-$7,000 to go to the CSU, right? If my tuition was $14,000 and my room was $7,000, they [students] get more financial aid. The way the financial aid formulas work it actually benefits universities that charge more in tuition. (137B, p. 12)

The same CSU president added that as capacity varies by CSU campus and region, perhaps more financial aid should be provided to students who need to leave their home base to attend a nonlocal campus that does have space to offer admission, "so that a working-class kid can go have a residential life experience. … you should be able to afford [the residential expereince] witout having to get $50,000 in student loans" (137B, p. 21). Finally, a UC CEO suggested that neo-traditional students require more financial aid to reduce their need to balance outside work and family obligations.

Reevaluate Historical Norms and Traditional Practices. Many participants' ($n = 15$) magic wand requests related to breaking historical norms and traditional practices of higher education. These requests included reduction of ed code regulations allowing more flexibility in how colleges conduct business (CCC $n = 1$); redefining completion metrics because 4-year is no longer relevant to 21st-century workforce demands (UC $n = 1$, CSU $n = 1$); reevaluating admission and graduation requirements (CCC $n = 2$) and align better with labor market needs (CCC $n = 2$); increasing flexibility allowing students multiple entry/exit points (UC $n = 1$, CSU $n = 1$, CCC $n = 1$); expansion of credit recovery and degree completion programs (UC $n = 2$); expansion of credit for prior learning (CCC $n = 2$); mandating that all UC, CSU, and CCC campuses adhere to the same academic calendar to support dual enrollment/concurrent enrollment and intersegmental faculty collaboration (UC $n = 1$); providing early dual admission to UC and CSU for CCC students (CCC $n = 1$); immigration reform for DACA students (UC $n = 1$); investing in high-tech course scheduling technology (UC $n = 1$); and last, but certainly not least, "a magic wand that can eliminate racial structural barriers" (130C, p. 17).

Looking to the future, a UC CEO identified that the past upon which California higher education was founded is no longer the present they face, noting,

In this day and age, where we're no longer in an agricultural society, where you know for really which these colleges and universities were built. We have to think differently about how we contribute to our communities, our state, our society in terms of economic and labor needs. (106A, p. 15)

The same CEO provided several examples of breaking rigid traditional higher education practices to accommodate neo-traditional student needs, such as offering degree completion programs on-site or approving units used at a different university to complete graduation requirements. This CEO also suggested providing students flexibility to stop out when needed, whether it is harvest time and they need to work or care for a sick parent, allowing students to take a leave of absence and providing an extension to graduate in 5 instead of 4 years. A CSU president shared similar perceptions, stating, "I think that colleges and universities are stuck in a structure that wasn't designed for today's students, or today's economy, or for today's cost of education" (106A, p. 4)

When asked "what federal or state legislation they'd like to see changed to increase the efficiency of baccalaureate attainment for California students," a CSU president discussed a systemic mindset shift:

I really wish we could get away from the 4- and 6-year types of graduation rates and a lot of those things that I think incentivize the wrong things. You know we really need to be able to allow students to come all year and we need, you know, multiple entry points. … I think we have to get away from some of those antiquated models on how we measure things and allow us to be a little bit more creative in meeting students where they are. (141B, p. 20)

The same CSU president questioned, if a student graduates in 4.5 or 6 years, does that mean they are not a success? A UC CEO shared similar beliefs about how success is measured in 21st-century schools:

I would first of all get rid of the 4-year that we reference, 4-year and 6-year graduation rates. … I would just say graduation rates because people take their time and … because I think that puts external pressure on people to get done in 4 years and to push students through in a way that is not aligned with their own trajectory or their own learning. The

second thing I would do is I would beef up every, every institution should have a degree completion program for stop-out students that can come back into the process at any time and complete and finish off. So, I would incentive that program. (124a, pp. 16-17)

Three participants (UC *n* = 2, CSU *n* = 2) shared concerns over present course scheduling practices. A UC CEO believed that we apply "our own lens of privilege to what higher education should look like" (145A, p. 1), such as instructional formats and faculty-driven scheduling. These sentiments were shared by another UC CEO who called for better utilization of classroom space, not just based on faculty desires, but "how often the courses are offered has to be looked at. I think the classroom utilization should be more than 6 hours a day. Everybody wants to teach between 10 a.m. and 4 p.m." (107A, p. 13). This same UC CEO added,

> And then I think the other thing that I would do is I would force institutions to invest in scheduling technologies and professional development for those individuals that do course scheduling because institutions are so far behind the curve on doing this well and appropriately. How[do] students sign up for their classes or get access to those courses. There … should be a much better way of resourcing that, making sure that on the side of you know, do we have the faculty to teach it, do we, when are these available, this kind of thing. That, that whole mess, it's a mess. And there are many better ways of doing this. If McDonald's can, you know, have 127 workers and they have this very sophisticated way of making sure this person gets their shift and so on and so forth, I think there are solutions out there for workforce planning, and this kind of thing that we should invest in in the higher education sector that would give us a much better chance of having students get the courses they want in a timely way, which then of course motivates them to complete and so on, so forth. (124A, pp. 16-17)

While this CEO makes a compelling argument, idealizing private industry business practices of yielding more efficient results, this comment is a perfect example of the neoliberalism mindset that several critical universities' scholars have lamented (Hamilton & Nielson, 2021; Newfield, 2016).

While all 47 participants were asked to identify opportunities for growth through the magic wand question, several participants identified additional areas of improvement needed in response to other interview questions, including many related to changing the status quo:

increasing outreach focused on reducing neo-traditional student knowledge barriers and increasing their self-esteem (CCC n = 1); communicating the value of higher education, especially to neo-traditional and A-G completers (CSU n = 1); every K-12 school should offer college prep coursework because that is where student self-identification of college belonging is first formed (CCC n = 1); college prep pathways in high school are treated as "exceptional" student pathways but needs to be expected and accessible to all (CCC n = 1); change the mindset that college is only to pursue careers as a doctor, lawyer, or accountant, but for all careers, including CTE (CCC n = 1); better understanding of student needs (CCC n = 1); and following the for-profit model of flexibility and creativity to meet students' diverse needs (UC n = 1, CCC n = 2). A CCC president stressed the importance of this, stating, "I think if we're going to maintain all economic development at the state level, we need to have a system in which students are able to access education beyond the associate degree level in a less traditional way" (100C, p. 2).

Additionally, a CCC president mentioned that they intentionally sit on several advisory boards to voice the concerns of students across the entire system. Lastly, two CCC presidents made mention that online classes need to be engaging and therefore at one CCC, a persistence project was implemented where faculty produce welcome videos and move from passive office hours to mandatory time with each student to build rapport, care, and empathy.

State Funding Priorities and Higher Education Tuition. The third most cited magic wand requests related to higher education finances and tuition including changing the mindset that "education is an investment, not an expense" (119A, p. 19), reevaluating how much money is directed to criminal justice versus higher education (UC n = 1), increasing state funding for enrollment growth (UC n = 1, CSU n = 1, CCC n = 1), increasing the FTES payout for CCC

students since UC and CSU receive more per FTES (CCC $n = 2$), increasing the FTES payout for

CSU students who receive half of UC (CSU $n = 1$), incorporating COLA metrics into the new

CCC SCFF so students living in high cost-of-living areas are not disproportionately impacted

(CCC $n = 1$), providing free tuition for community college students (UC $n = 1$, CSU $n = 1$),

making public higher education free for all students across all systems (CCC $n = 1$),

implementing regular tuition increases that match inflation (CSU $n = 1$), and providing a 3- to 5-

year budget to allow schools more opportunity for planning and innovation (CSU $n = 1$).

> A CSU president provided several suggestions surrounding state funding structure:

> Lack of access. Allow me to admit more students. Allow me to be innovative. Let summers count right now summers don't count as part of the regular year, we have to run it through continuing education. Let it be state funded. Let's use the buildings during the summer. We've gone from 2,000 to 6,000 students in the summer, but why aren't we at 14,000 or I have 31,000 students here. Why don't we open up the summers and use them? The buildings are still being air conditioned. (125B, p. 16)

A different CSU president also illuminated the fact that capacity varies by CSU campus and

region, and therefore suggested that the state reapportion more monies to high enrollment areas,

like Southern California. Lastly, a UC CEO urged legislators to recognize the additional fiscal

resources required to support enrollment growth—more faculty to teach more courses, additional

student housing and other infrastrucutre needs

Statewide Articulation and Transfer Pathways. The fourth most cited response to the

magic wand question related to statewide articulation and transfer pathways. Participants

identified a need to streamline statewide articulation (UC $n = 3$, CCC $n = 1$), develop common

course numbering (CCC $n = 1$), develop an intersegmental shared database for tracking students

(UC $n = 1$), increase UC and CSU capacity to admit more CCC transfer-intending students (CCC

$n = 1$), create real transfer guarantees (CCC $n = 1$), and require UCs to implement ADTs (CCC n

= 1). Additionally, a CSU president suggested that legislation incentivize more work on ADT pathways and reward schools that improve outcomes (CSU n = 1).

When asked for ideas that could improve the transfer function in California, a CCC president stated the need to increase capacity at CSU and UC and allow CCCs to increase baccalaureate offerings, but also that, "if they can force the CSUs to have a consistent gen ed across all programs all universities went in the state that will be a HUGE win for all the students" (100C, p. 13). Oppositely, a CSU president believes focusing on ADT work is the best approach and does not believe recent legislation (AB 928) to develop a shared GE curriculum were viable, commenting:

> I know there's some legislation hanging out there about a shared general education curriculum. I think it's hard to argue against that in a conceptual way, but it shows a complete lack of understanding from legislators about how universities work. You know you build on the strengths that you have in your faculty and so, thinking that there's a lock step to general education is probably a bit too far. (112B, p. 13)

A different CSU president stated that ADTs, "theoretically make things smoother" and identified work yet to be done to enhance the effectiveness of ADT transfer pathways:

> Can we meld our technology platforms, can we start you know, treating the community college student who's heading our way as one of our students, you know in a certain extent, where they're meeting with our advisors so that they're sure that they're staying on track. Maybe they get a library card, they can use our library. So, we're trying to take it to the next level in terms of smooth pathways for transfer students. There's a lot of will, but you know, like getting technology platforms to talk to each other because it is you know I guess you could say that's a systemic problem. (126B, p. 14)

A CCC president who previously worked as a counselor, urged that:

> We need to get really serious about really having guarantee agreements that students can really rely on and count on. Because I just feel like they've been kind of watered down over the years and kind of politicized and it looks good, but in practice they're not really working for students. (109C, p. 15)

Many participants discussed the opportunity to continue intersegmental collaborative work to streamline statewide matriculation processes, curriculum, and transition points for

transfer students. A big area of opportunity cited was intentional K–20 data sharing. A UC CEO

believes data sharing would "support students wherever they decide to go" (134A p. 15), calling

for,

> Honest data sharing about student success so that we can track students. We can know
> what they're doing, if they dropped out of UC do they reemerge at a community college
> or at a CSU in a different major? [Data sharing would] help us to understand that. I think
> that would be very helpful. (134A, p. 15)

While several CEOs across all three segments shared various regional collaborative efforts they

were presently engaged in, data sharing was cited as a roadblock difficult to overcome as

different technology systems are currently used intra and intersegmentally. In 2019, California

Senate Bill 75 called for the creation of a statewide cradle-to-career database with budget

allocation for its establishment in the 2021-22 budget (SB 75, 2019; State of California, n.d.).

However, the fiscal and technical resources needed to have various systems talk to each other is

not a simple fix. A UC CEO highlighted this among other opportunities for statewide

collaboration:

> I think that the leverage that could be applied to help the collaboration be better and
> stronger and more impactful for students would be twofold. One is that data piece, none
> of our data systems talk to each other. … The other thing I think we need in California is
> a common calendar. … Let's all go on, not just the semester system, but start at the same
> date. And so that you know, a student could be taking a UC class, community college
> class from dual enrollment or what not. We have mechanisms of allowing community
> college students to take a UC class but it's very hard because our calendars don't align.
> And so that's, it's a heavy lift to convince universities that they should change their
> academic calendar. So, mandating that is probably the way that it would happen. (134A,
> p. 16)

While through the magic wand question all 47 participants were asked to identify

opportunities for improving California student baccalaureate attainment, when responding to

other interview questions several participants identified additional areas of improvement related

to intersegmental collaboration. Suggestions included: better communication of pathway options

to students (CCC $n = 1$); increasing awareness of dual enrollment opportunities (CCC $n = 1$); better align systems and share data (CCC $n = 1$); partnering with public and private 4-year institutions to increase capacity (CCC $n = 4$); or open new UC and CSU campuses (CCC $n = 1$); partnering with regional private schools to reduce tuition for local CCC students (CCC $n = 1$); partnering with university financial aid offices to increase financial literacy of first-gen CCC students (CCC $n = 1$); creating research opportunities for CCC STEM students at 4-year schools (CCC $n = 1$); to allowing CCCs to operate as 4-year microsites, utilizing 4-year faculty and early access to 4-year on-campuses resources (CCC $n = 1$); or restructuring public higher education so that UC and CSU provide open access for upper division coursework as CCCs continue open access for lower division coursework (CCC $n = 1$).

A UC CEO outlined an initiative where they visited each local CCC and asked for feedback on what they could do better. As a result of that outreach, two themes emerged from local CCCs: (a) they wanted UC to establish a presence on their campuses, and (b) they wanted UC to demystify the transfer process. This resulted in a yearlong effort of intentional relationship building between UC and CCC faculty, UC advisors and CCC counselors, and CCC president to UC Provost. These intentional conversations provided additional insight into additional areas of concern, such as articulation, and resulted in development of 2 + 2 transfer maps for students to follow. This process was a great learning experience in that

> some transfer pathways that are pretty easily articulated—physics to physics, chemistry to chemistry—but when we have something like critical research and ethnic studies, you know that's a much more difficult pathway. The same thing is true for our engineering programs, for instance. And so, trying to codify some of those more difficult challenging transfer pathways was also one of the big sticking points. (124A, p. 6)

The UC CEO added that they were going to provide opportunities for intersegmental faculty collaboration once per semester. With the heavy lifting already complete, each academic

program of study will likely only require small tweaks each subsequent academic year. A CSU

president made mention that they also worked on intersegmental collaboration building with

their local CCCs, sharing:

> One of the things that we did that had never been done, which just shocked me, is we invited the counselors to our campus from the community colleges. We'd never had conversations with them. I think that has made a huge difference for us. Those conversations about what we expected and about the curriculum. That's been tremendous. (125B, p. 14)

Counseling and Advising. Accurate and timely advising (UC $n = 5$, CSU $n = 3$, CCC $n =$

1) was cited as top area of opportunity for improvement. Four participants (UC $n = 2$, CCC $n =$

2) also identified the student mental health crisis as one of their top three challenges. As a result

of increasing neo-traditional student enrollment, two UC CEOs' magic wand requests included

increasing access to advising and counseling, one of which commented, that "UC needs to work

on its climate and being more student-ready" (145A, p. 2). Additionally, in response to other

interview questions, a few participants (CSU $n = 3$) identified a need for more advisors and

career advising before junior year. Two participants agreed, sharing that those students who do

not declare a major by sophomore year are more likely to leave (UC $n = 1$) or result in extra

unnecessary units (CCC $n = 1$).

Diversity, Equity, and Inclusion. When asked to identify systemic and institutional

barriers that inhibit California student baccalaureate attainment, only three participants (UC $n =$

2; CCC $n = 1$) identified the need to modify curriculum and pedagogy to address equity gaps.

However, when asked to identify their top three challenges leading their respective schools,

several more executive leaders identified the challenge of closing student equity gaps (UC $n = 2$,

CSU $n = 1$, CCC $n = 7$), as well as other diversity, equity, and inclusion (DEI) issues, such as

hiring practices (UC $n = 3$, CCC $n = 2$), and the need to equip students to address contemporary

DEI conversations (CCC n = 2). A CCC president identified DEI issues as a top leadership

challenge:

> And in a leadership role I think the challenge has been that oftentimes people see the problems with others, but don't see that they are the ones who are creating part of the problem. It's always the person over here, but sometimes it's not…And how do we look in the mirror and see what role we play in dealing with the issues that are at hand, particularly as it relates to diversity, equity, and inclusion? (111C, p. 4)

Two participants (CSU n = 1, CCC n = 1) also correlated higher education access to equity

Additionally, a CCC president shared that the CCC postpandemic declining enrollments have

actually widened some equity gaps, as more neo-traditional students drop out. The CCC

president elaborated,

> So, there's a declining enrollment, there's a widening in some areas of equity gaps. And so that's really where we focused our energy. So that means things like developing professional development for our faculty and staff to be able to support our students in new ways, more sensitive ways, more equity minded ways, pedagogically or delivery. (143C, p. 3)

Executive leaders across several campuses shared the efforts they are engaging in to

address issues surrounding diversity, equity, and inclusion. Issues related to DEI have been a

central focus and interwoven into several recent CCCCO initiatives, such as the Vision for

Success, the recent June 5, 2020, Call the Action, and the requirement that all CCCs submit an

equity plan. Four CCC presidents highlighted that they are intentional in communicating how

various campuswide initiatives tie into the overarching goal of student success and equity, which

serves as the campus "north star." Reducing student equity gaps was also interwoven into the

CSU GI 2025 initiative. Therefore, much work has taken place across all three segments, such as

an increase in professional development offerings (CSU n = 1, CCC n = 1) and an intentional

review of course assessment data to identify gaps and provide faculty with appropriate resources

to address those gaps (CCC n = 1). Additionally, two CCC presidents mentioned that they hosted

student town hall meetings to provide a safe space for students to voice their opinions

surrounding racial and political tensions occurring in mainstream media. A CCC president

elaborated,

> I don't think we do enough to really understand our students' experiences. It's so powerful when our faculty and staff hear the experience of our students, good and bad. And we build that into our monthly town meetings as well. Because we value the student's voice. (131C, p. 7)

Town halls were also used to solicit student feedback and a CCC president mentioned the

development of a social justice workgroup, which included a student cochair. Lastly, a CCC

president stressed the importance of intersegmental collaboration, sharing that California is a

state that claims equity-mindedness but cannot achieve equitable outcomes in higher education

without commitment from UC/CSU/CCC leaders.

Baccalaureate Programs at CCCs. The last most cited response to the magic wand

question was for the legislation to allow CCCs to offer more baccalaureate programs (CCC $n =$

6). A CCC president shared,

> The magic wand is to extend and expand the baccalaureate degree bill to allow for all colleges and more than one program. And that it doesn't have to be a program that is not repeated by the CSUs, etc. If the colleges can do it and it's competitive, they should be allowed to do it. (130C, p. 17)

A different CCC president elaborated on the role that CCCs can play to increase baccalaureate

access in rural areas:

> I really believe if we could offer certain degrees that would lead to really well-paying jobs, and we're so affordable, and it is an equalizer and really can transform the region as well. And I get tired of hearing oh, we don't have a trained workforce in the Inland Empire. Well yeah, we do, they just get on the freeway and go to Orange County or San Diego County every day. So, we need to change that. And one way is to bring degrees to where our students are. And like I said, I wish online was the solution, but it only meets part of the need. So, I am a big fan within reason. I'm not trying to compete with the CSU, I just want to have the ability to offer those programs and degrees that our local businesses say we do not have a trained workforce in order to be successful. (115C, p. 14)

While only six CCC presidents chose to list this as a magic wand request, many more participants shared support throughout the course of their interview. Given present capacity constraints cited by the majority participants ($n = 31$), executive leaders were asked if there was a role for CCCs to play in offering baccalaureate programs, and if so, in what capacity. Both community college ($n = 24$) and university executive leaders (UC $n = 6$, CSU $n = 5$) agree that it could help, especially in high demand careers (UC $n = 2$, CSU $n = 1$, CCC $n = 11$), or rural locations where baccalaureate options are limited. But several university executive leaders (UC $n = 5$, CSU $n = 5$) cited concerns about CCCs' ability to offer more baccalaureate programs (e.g., mission creep, current CCC ecosystem, present financial constraints, accreditation standards which change when offering more than one baccalaureate program, etc.). Alternative suggestions included increasing focus on existing pathways such as CSU ADTs, UC TAG, other MOU/guaranteed transfer pathways, and development of more UC/CSU satellite campuses.

Innovative Strategies. While all 47 participants were asked to identify opportunities for improving the efficiency of California student baccalaureate attainment through the magic wand question, most identified additional areas of improvement in response to other interview questions. On the topic of fiscal limitations, several participants identified areas of opportunity that could stretch their budget further. Several of these suggestions related to managing human and fiscal resources. A UC CEO mentioned that staff and faculty are forced to serve multiple roles, while other UC CEOs shared that employee can be cross-trained and participate in job sharing, or that technology can be leveraged to do more with one position. Two UC CEOs also mentioned the need to diversity faculty and staff to reflect neo-traditional student needs.

As a CCC president poignantly illuminated, "You know our budget is a reflection of our values. So, whatever we say we value, then we budget to sort of support that" (113C, p. 11). Similarly, another CCC president shared,

> If you want to go to a campus and try to find out their priorities, do not look at their strategic plan, I don't look at the strategic plan. You can write whatever you want to write in the strategic plan. I look at their budget book and I see which mission they are funding. (1120C, p. 12)

Several California public higher education executive leaders provided examples of how they attempt to maximize the resources they have. Strategies employed included: running self-support programs through extended education (CSU $n = 1$); identifying resource requests that can make use of categorical funding, which in turn stretches non-categorical monies further (CCC $n = 1$); centralizing the budget (CSU $n = 1$) and increasing university operation efficiency (CSU $n = 1$, CCC $n = 1$).

A new CCC president that was still working to establish trust with college constituents shared their objective approach to budgeting, which included process mapping to identify gaps in resources or departments that have too many resources. This data informed approach to financial decision-making is then shared with broader community with transparent explanation as to why certain items were prioritized over others. Similarly, a UC CEO shared that their executive leadership team proactively examined the impact of various potential budget cut percentages, learning that more than 5% would negatively impact their ability to serve their core mission. As a result of this research and anticipating additional state budget cuts, they devised a plan that included four additional revenue streams: (a) employing an improved budget modeling process, (b) increasing online classes and programs, (c) increasing summer enrollment, and (d) evaluating the fiscal implications of changing the academic calendar.

Knowing that state support is unpredictable and insufficient, several participants also identified strategies to increase fiscal resources. Strategies employed included: increasing philanthropy solicitation (UC $n = 1$, CSU $n = 1$, CCC $n = 3$); increasing grant applications (UC $n = 1$, CCC $n = 6$); actively fundraising for more endowment student scholarships (CSU $n = 2$, CCC $n = 1$); convincing college constituents that it takes money to make money and the value of foundation staff (CCC $n = 1$); increasing out-of-state and international enrollment because they pay three times tuition (CSU $n = 1$); and advocating for more state resources (UC $n = 1$, CCC $n = 2$). A CCC president elaborated on this, sharing:

> The role of a of a president has to be to raise money. The challenge becomes do you have the infrastructure, do you have the seed money to be able to raise the money. Do you have the staffing in your foundation? All those things take money. And it also takes convincing the faculty and other constituencies that this is a good investment. (129C, p. 4)

Also, since several participants made mention of recent enrollment declines resulting from the COVID-19 the pandemic, two CCC presidents have increased their marketing budgets in an effort to recapture lost enrollment, which in turn will increase their state funding allocation.

Identifying sustainable funding sources is always a CEOs top priority, which is evident in college and university strategic plans. A UC CEO identified a campus-wide effort to increase undergraduate programming and enrollment in science disciplines that would also allow the university to leverage more external research funding. The CEO elaborated, "We were going to build out the health sciences, in particular, and applied science and engineering because student demand was going in that direction. That was going to allow us to dramatically increase research funding for the campus" (146A, p. 8). What this CEO did not mention though is that grant funding for science research most often does not cover the full cost of operation to the university, as other scholars have documented (Hamilton & Nielson, 2021; Newfield; 2016).

A CSU president shared that the executive cabinet holds a retreat every year to outline priorities and how they align with the university strategic plan. Then the annual budget is set to reflect those priorities. They elaborated on their efforts to be fiscally responsible stewards of taxpayer dollars, sharing,

> We have to be really thoughtful about how we steward our funding. And we've done that in several ways I think. You know, one is to avoid certain kinds of spendings by being more efficient in our processes. So that if you're, you know, doing business processes, and we all have them at big universities, we're you know 40,000 people by the time you add everyone up, there's a lot of things we do every day just to run the operations. We don't want to waste money in those things, so we've been spending a lot of time re-engineering processes right. Making sure they're streamlined, they're efficient, so that we can take those dollars that we save and put them back into the academic mission, which is the heart and soul of the university. So that's just one way. The other way is that we've actually centralized the budget, not at the line item but, in general. … So, you don't have a department, for example, or college or what have you, at the end of the fiscal year say, "Oh, I have this extra money, what can I spend it on." That's not strategic. But if we are more thoughtful about it, then we can actually use those dollars to maybe seed a new pilot program in advising or support a bridge program for students coming into the institution, or something like that. (141B, pp. 4-5)

Since some UC and CSU capacity constraints are the result of physical plant or land expansion restrictions, leveraging innovation, technology, and hybrid options to do more with less were also cited (UC $n = 2$, CSU $n = 1$, CCC $n = 1$). While four California public higher education executive leaders highlighted to need to leverage hybrid and online courses and programs to increase capacity, a CSU president highlighted the importance of maintaining a physical presence and the impact it has on engaging neo-traditional students who so desperately need community, elaborating,

> The real reason why we are so transformative is because of the experience of being on campus. It's the experience of being with each other, learning with each other, coming up with ideas with each other, ramifying into different social networks, joining clubs and organizations. Like all of that encompasses why [CSU] is so important to our students. And without the proper facilities for our students, we won't be able to provide that experience. So, I know that a lot of campuses are shifting to, you know, virtual and whatever else. I still believe that for our students, the experience will be the central focal

point of their success, both at [CSU] and in life later on as well. And for that reason, I believe that buildings they're greatly important. (132B, p. 5)

Oppositely, a CCC president shared a different view, questioning future facility needs in a postpandemic world, where students and faculty alike have become more accustomed to online courses.

California Transfer Climate [RQ2]

Most participants highlighted the importance of the CCC transfer pathway to UC and CSU, which increases neo-traditional student access to baccalaureate-level education. And UC and CSU executive leaders talked highly of their transfer students when referencing their higher 2- and 4-year graduation rates when compared to their FTF counterparts. However, opinions diverge when discussing cultural climate and acceptance of transfer students on campus. In evaluating words, tone, and context used when discussing CCC transfer-intending students, CSU presidents spoke more favorably than most UC CEOs.

A CSU president provided their viewpoint on the role community colleges play in higher education:

> I believe that community college is the crown jewel of the American higher education system. No other country in the world has them and I don't think we actually articulate that enough in the states. Community college is perceived, for the most part, as the second or the third or fourth or fifth or sixth option that a student has. And you know, "I might as well just go to the community college because, hey, I don't have anything else to do, and I guess I'm just going to you know spend my time there." That needs to change and that needs to change in a dramatic way. The community colleges have the responsibility to let their students know what role they play in the higher education system. (132B, p. 18)

In a recent visit to their local CCC, this CEO was disappointed to not see banners and marketing sharing the transfer success stories of their students, adding, "I think there needs to be a concerted effort into saying that community colleges are an integral, equal, powerful part in the process of educating our people. And, especially for … communities of color, they're crucially

fundamental" (132B, p. 19). This CSU president identified lack of self-confidence as a major

barrier for community college students, commenting,

> Many of them think of themselves as you know, "I am here because this is what I deserve and what I deserve is only the community college." I think they start with that mentality already after high school, even though really most of them have the right classes to get into CSU. (132B, p. 22)

Among UC CEO participants, there was disagreement in how access to 4-year education

for transfer students was perceived. Some UC CEOs identified longstanding negative stigmas

surrounding CCC transfer-intending students, while others believed their campuses were

adequately serving transfer students. A UC CEO believed, "Transfer students need to be a part of

the vision of colleges and universities and not an afterthought, not students that you seek after

you have failed to meet your freshman targets" (106A, p. 10). Evidence that transfer admissions

is not a priority at UC can be found in the following UC CEO statement surrounding the

admission decision process:

> We have a very elaborate modeling process where we figure out how many letters of admission we're going to offer at the freshman level and then work backwards from what we likely see as a transfer population. And because transfer admissions come in a little bit later, we can work with both waitlist options in both freshmen and transfer populations to make sure we come into that number. (119A, p. 11)

The same CEO said, "We have left our transfer waitlist open mainly because we want full

enrollment and if certain international students pull out the last minute because I can't get here

then we've kept that waitlist open this year. But that's an unusual COVID-related situation"

(119A, p. 12). Just another indication that transfer students are given the least consideration in

the admissions process. These facts are not congruent with the sentiment this CEO provided

when describing transfer students as "outstanding." It's even more evidence of disjunct

knowledge as two CEOs from the same campus were interviewed, one specifically stating that

they do not offer any specialized transfer programming because they do not have trouble hitting

the 2:1 freshman: transfer ratio, while the other CEO identified several transfer-related initiatives they offer prospective and current transfer students.

Two UC CEOs shared that until recently, transfer outreach and initiatives were not a priority of UC. This changed in 2018 when Governor Brown utilized financial levers to enforce a 2:1 freshman to transfer ratio (Jackson, 2017). Governor Brown's push was that each individual campus must meet the mandate; it could not be obtained collectively as a system, allowing some campuses to admit less transfer students while having other campuses overcompensate by admitting more. As a newly established campus, UC Merced was not required to meet the 2:1 ratio (Jackson, 2017). Governor Brown obtained leverage for this mandate by withholding $50 million from UC in fiscal year 2018-19 because UC Riverside and UC Santa Cruz were not incompliance with the 2:1 ratio.

To ensure continued compliance of the 2:1 ratio, most UC campuses had to engage in deliberate and intentional efforts to send admissions representatives to each of the 115 CCC campuses to establish a presence and develop recruitment of transfer-intending students. In a time before Zoom was the norm, this outreach required substantial human and fiscal resources to extend outreach across the entire state. A UC CEO believed that with these visits, UC admissions personnel foster a collaborative spirit directing students in the appropriate pathway, elaborating,

> We also understand that there are many different routes to higher education, and so, if a student doesn't look like they're going to be UC eligible or UC admissible then we're really pushing the community college route, or the CSUs, or some of the private institutions. (123A, p. 9)

This student-centered approach was not always present as a different UC CEO highlighted, "When I came to UC, we didn't talk about the transfer pathway. We have to let them know that if you are academically immature, or for whatever reason cannot go straight into a 4-year

institution, you can still come" (106A, pp. 17-18). The same CEO added, "A lack of knowledge and or maturity should not be a life sentence to students" (106A, p. 18).

As a result of the 2:1 mandate, additional efforts were made to address articulation gaps with local CCCs (UC $n = 2$), and some campuses (UC Riverside, UC Merced, and UC Santa Cruz) opened winter/spring admission for transfer applicants. A UC CEO highlighted that with these transfer initiatives, their transfer enrollment doubled. However, as CCCs across the state have experienced on average 19% decline in enrollment between fall 2019 and 2021 (CCCCO n.d.-a), several UC CEOs are concerned the impact this will have on their ability to meet the 2:1 freshman-transfer mandate. A UC CEO highlighted these concerns:

> We are struggling and I'm not sure we'll meet that 2:1 ratio this year, just because of what I mentioned earlier about the unpredictability of student behavior as a result of the pandemic. And so, we may kind of overshoot our freshman target this year, which, because of that, you know it's going to kind of skew our 2:1 ratio that we were going for. (118A, p. 10)

Without naming names, a UC CEO stated that some UC campuses and faculty are more reluctant to embrace transfer students than others. Another UC CEO did not share words of admiration for transfer students, first by stating that the 2:1 freshman-to-transfer mandate forces some UC campuses to "scrape the bottom of the barrel" (107A, p. 8). While it may be true that some UC campuses struggle to meet the 2:1 mandate and select qualified transfer students whom they feel will be successful after transfer, it is the tone and language used to describe CCC transfer-intending students. The same CEO later said that "Cal States are most likely a better fit for a lot more community college students" (107A, p. 11). This statement implies that most CCC transfer-intending students will not be successful in meeting the demand and rigor of a UC education.

A CSU president who formerly worked at UC, recalled a committee meeting discussing the topic of transfer students and, "the attitude was well you know, they [transfer students] should be taking our courses, why would we take their courses" (112B, p. 15). This comment was made by a faculty member. Reflecting on this memorable encounter, the now CSU president analyzed this scenario as a result of mission:

> The UC was given a research mission and national and international mission. The CSUs were given a regional development mission. So, if you you're not thinking that it's your job to work on the educational attainment of your region you don't think much about transfers. (112B, p. 15)

While many UC CEOs expressed concerns regarding the quality of instruction at CCCs, a UC CEO expressed great admiration for admitted transfer students:

> Our transfer pool is more diverse than our freshmen pool, so that's great. So, I've often wondered, although I'm not sure I'd get any public support for this, is whether we should up our transfer goal, because it's so much more diverse a pool and I love our transfer students. (138A, p. 6)

Another CEO from the same UC campus also shared deep admiration for transfer students calling them "outstanding" and identifying that "they get a good start in their community colleges and then they're able to be successful when they reach our campus" (119A, p. 2).

Another UC CEO explained,

> UC is just, you know, they think that we're like elite and above all this, you know, above some things. And you know it's just, it's not, obviously it's not true. And you know, some of our faculty are just, even getting them to accept the transfer students and acknowledge that they're on campus took some work as hard as it is to believe. And you know there is kind of this underlying current, this underlying issue or assumption that transfer students were less than, and that they wouldn't be successful in some of our majors. And so, we've had to do a lot of work around that. And I am happy to say that we've made good progress. But you know it's really only been the last few years. (123A, p. 19)

The fact that this CEO used the word "they" in reference to elitism along with their mocking

tone, made it clear that they did not necessarily agree with these sentiments; however, this CEO

has spent most of their working career at the same UC campus.

A few UC and CSU executive leaders deflected their responsibility to provide

baccalaureate access to CCC students, and instead placed blame on CCCs. A UC CEO

commented,

> The graduation rates at community colleges are pathetic. And a lot of people go in, but never come out. And that's what limits access. I don't think we are limited by number of seats, we are limited by the community college improving it's graduation rate and its preparation of the student. (107A, p. 7)

A couple of UC CEOs highlighted that while the CCC transfer pathway works for some, it does

not work for most. Many students end up at a CCC because they are unsure of their future career

and academic goals, and like FTF at 4-year institutions, being an undecided student can be

detrimental to retention and completion.

A CSU president shared a similar perception, saying, "If the feeder [CCC] is you know

losing 80% of the students that enter, you know that certainly creates barriers to successful

transfer" (112B, p. 13). The pervading sentiment that, "if you go to community college and

flounder, you're going to be stuck at community college for years" (118A, p. 14), was addressed

by a CCC president who reminded,

> Not letting students get lost in our 2-year pathway is part of its our problem. I get that. But part of it's just the nature of some of the students that ended up enrolling in a community college as opposed to going directly to [UC] right out of high school. (127C, p. 19)

Data do confirm that only 19% of CCC students who intend to transfer do so within 4 years, and

28% do so within 6 years (Johnson & Mejia, 2020). Even more troubling, while 51% of CCC

students who declare an intent to transfer are Latinx, only 35% of CCC Latinxs students transfer

within 4 years (Johnson & Mejia, 2020).

California Transfer Pathways [RQ2]

On the topic of baccalaureate access for California transfer-intending students, several

participants commented on existing transfer pathways. Only four participants (UC $n = 2$, CSU n

$= 1$, CCC $n = 1$) provided positive commentary on existing transfer pathways, whereas one third

(UC $n = 3$, CSU $n = 2$, CCC $n = 10$) highlighted areas of concern or suggested that existing

pathways need to be improved, streamlined, and increased (CSU $n = 2$, CCC $n = 5$). A CCC

president elaborated on the confusion that results from students having a variety of pathways to

choose from:

> Students need focus, they need clarity and expectations. I have always said that our high
> school partners from the moment a student becomes a ninth grader, they know what
> they're taking ninth, 10th, 11th, and 12th grade, they have that roadmap. You go to a 4-
> year university as a freshman or as a junior, you don't know exactly what you need to
> take to graduate. We as a system have created so many options, and so many layers, and
> so many variables, that sometimes our end goal, what we're trying to get students
> towards is not clear. And so, we've got to be really clear and help them understand what
> that roadmap looks like. (140C, p. 7)

A couple of participants stressed the importance of the entire institution taking on the

responsibility of the transfer mission, not just the counseling faculty or Transfer Center. Also,

transfer conversations with students need to happen from day one. The top concerns surrounding

California transfer pathways include (a) complexity of application and admission requirements,

(b) lack of uniform articulation within and across systems, (c) and impact of capacity constraints.

This section concludes with participant suggestions for improving transfer pathways.

Application and Admission Requirements

When asked for the top three institutional or systemic barriers that inhibit transfer-eligible

students from successfully transferring to a 4-year university, seven participants (UC $n = 3$, CSU

n = 1, CCC *n* = 3) spoke of the lack of uniformity and complexity of application and admissions

requirements. A UC CEO elaborated on the role of CCCs:

> So as important as the transfer process is to access higher education to a 4-year, it can also be a stop-out point too for students that don't have access to the resources, don't understand how to navigate the process. The transfer process is extremely complicated. (118, p. 14)

This UC CEO added that legislators often advocate to create additional transfer pathways,

resulting in increased complexities, adding, "It's just so complicated and convoluted that you

almost have to have a degree to navigate the transfer process" (118A, p. 15). Let that statement

sink in—***you need a degree to navigate the vertical transfer process in the state of California***.

Therefore, how can you expect neo-traditional students to navigate the maze that is transfer in a

timely and efficient manner? A different UC CEO shared their frustrations over the complexities

surrounding transfer:

> The process of figuring out what courses transfer … it's complex and if you get bad advice from somebody it's, number one, it's going to cost you a great deal of money, it's going to cost you time, and the frustration could just be enough to push a student away from pursuing their bachelor's or even an advanced degree someday. (123A, p. 17)

A CCC president shared a similar sentiment, stating, "We have to remain committed to our

promise to the community that we were going to make these pathways to transfer, pathways to

work for some industry more accessible" (133C, p. 5).

A UC CEO shared, "I don't see that the problem is that [the transfer process is] too

complicated, I just see the problem is that there's not enough space" (146A, p. 22). However, in a

preceding statement, the CEO referred to the UC application process as "administrative

craziness" as a result of "a very complicated system where nine campuses are admitting people

on the basis of different admission processes" (146A, p. 22). These two statements are in direct

contradiction to each other and expose a disconnect between ground-level admission practices

and executive leadership perceptions of said processes and their impact on neo-traditional students.

Intra and Intersegmental Collaboration

Closely tied to complexity of admission requirements is lack of uniform articulation both within and across the UC, CSU, and CCC systems. The primary focus of increasing intra and intersegmental collaboration is to streamline articulation (UC *n* = 5, CSU *n*= 2, CCC *n* = 12) and to develop common course numbering (CCC *n* = 4). While various online tools exist to outline university and major admission requirements (e.g., ASSIST, UC pathways, UC pathways plus, UC TAG, CSU ADT, individual campus websites, etc.), they are disparate systems. Further, these systems do not provide articulation information for every possible transfer scenario/major/school.

When asked what are the top three institutional or systemic factors that may inhibit transfer-intending students from being admitted into a 4-year school, a CCC president shared,

> Four-year colleges can sometimes put-up barriers that don't need to be there on not accepting coursework or forcing students to repeat very similar coursework. That just is an accumulation of unit problem that should not be there right. (121C, p. 3)

Oppositely, a UC CEO seemed to place blame on CCCs, stating, "Not all community colleges offer the whole curriculum" (138A, p. 7) required for each major. Is this the full responsibility of 115 different CCCs, the responsibility of UC faculty to streamline major prep requirements, or both?

A CCC president elaborated on their frustrations surrounding curriculum and articulation, identifying it as a systemic barrier that inhibits vertical transfer:

> I just think we need to simplify it a little bit. Between our 115 campuses and the CSUs alone, you start looking on assit.org and it can just frustrate you. You know it can just really frustrate you. First of all, not all the CSUs update it. But then we're all using kind of different terminology or vernacular. And I really respect academic senates and

participatory governance, I'm not criticizing the structures that we have, but I don't know why we all have to have a different name for English 1. And I don't know why at one place it's English 1 plus English 2 equals somebody else's English 101. It's hard enough for people like me and you to follow that. You know, try and be an 18-year-old first-generation college student whose parents grew up in the fields, or work in the fields, he gets no help at home. There's no way you know to decipher that. It's just really tough. Whereas if my English 1 was the same as your English 1, which is the same English 1 that UC would accept in the majority of their programs. I just think we just need to simplify it. And I don't, I'm not holding out hope that's going to happen unless somebody forces us to. (127C, p. 22)

A different CCC president, who previously served as a CCC articulation officer shared similar frustrations, questioning why there is such deviation in curriculum even within the CSU or UC (105C). They passionately explained,

Why are we having this much deviation? Is the curriculum that different between Fresno and San Diego or San Luis Obispo and Humboldt? Let's be honest, most business degrees are business degrees. Most anthro degrees are anthro degrees. Communication degrees are all, they're all essentially the same, or at least they should have a common outcome. And I think you almost need to tear it all the way down and then build it back up just with the essential items. But I don't know if we have the political will to do that. I think you would throw a lot of senates and everything into a tizzy. But you've got to be able to simplify it and stop having these one offs. It's got to be straightforward from us, and the work that we do to be able to advise students … people you know let them believe that mine is best, mine is so much better, and we've got to take the ego out of it, and we've got to put students at the forefront. (105C, pp. 22-23)

Another participant shared similar frustrations regarding variances in admission requirements:

When students complain and they grieve that the system is rigged against them, I think of those examples and I'm like yeah, it's rigged against you. Because like how can this be good for UC Davis but not be good for UC Santa Barbara. And that's because even across those systems they're not talking about what some baseline pieces are. So, like that's the kind of stuff that just like irritates me to no end. (133C, p. 19)

Another participant shared, "I've always thought the California is a crazy insane system, because we have 116 colleges trying to articulate individual agreements with 23 CSUs. So, you know, it's just it's insane" (116C, p. 14).

While ADTs have helped to streamline required major prep for CSU transfer-intending students, it is not available for all programs of study, like engineering or nursing, or offered by

each CCC. A CSU president commented on ADTs stating, "I think we've made a lot of progress

in this space, not that there's much more to do" (141B, p. 16), and added,

> They're not perfect because they are very focused, but the idea is right in the sense of
> creating clarity, seamlessness that students know what they're doing at the community
> college and then how that's going to move over into the 4-year institution. (141B, p. 16)

A CSU president shared that even within the same region, for any given major there may be

different major prep requirements for each CSU campus.

On the topic of baccalaureate access for California transfer-intending students, nine CCC

presidents shared concerns regarding ADT legislation. A CCC president shared frustrations

regarding unequal implementation surrounding ADT legislation:

> I mean the ADTs, you could even argue that they haven't quite had the promise, we
> haven't quite fulfilled our promise. They've improved things, but there's some pretty
> ugly research that's come from California Futures Foundation which shows how much it
> varies from one Cal State to another. Some Cal States are pretty much violating the law.
> They're just making students take a whole lot of classes that they've already taken. And I
> think enforcement with ADTs, you know penalizing Cal States who force students to
> take, to waste their time in classes would be a good step. Making UCs accept the current
> ADTs, because it's just such complex bureaucratic nonsense that there's talk about
> perhaps having something, notice my language, talk about perhaps having something that
> looks like ADTs. (114C, p. 19)

Similarly, when asked, "If you had a magic wand, what federal and/or state policies would you

like altered to increase baccalaureate attainment for California students," a CCC president

answered:

> I think at the state level we've made quite a bit of progress with SB 1440. I would like to
> see that legislation strengthened to provide more accountability for our 4-year partners to
> honor the ADTs. So, what's happening at CSUs right now is there, at the discipline level,
> the faculty level, they're starting to audit the ADTs and they are deciding if they have
> similar designations or not. When they decide it's no longer similar, then they say to us,
> "We'll still accept your student, but it's no longer similar so they may have to take the
> same class again when they get to us, and time to completion may be longer." So, I know
> that we have the same goal between the two systems but strengthening the accountability
> piece and honoring the spirit of the transfer agreements would go a long way. And then
> having a parallel agreement with the UC system would be really incredible, which
> they've been very resistant to have. So, I think we just need to continue to strengthen that

legislation and put some teeth behind it to make sure that once we come to the table, once we have an intersegmental agreement, that we're all on the same page and we're going to honor that for our students to get them through for 120 units and get them to graduate. I think that's the big one. (140C, pp. 7-8)

The same CCC president later added,

It really comes down to resistance at the faculty discipline level, and there either needs to be a carrot or a stick or both. … It's going to take some incentives, it's going to take some oversight, some accountability to get those faculty at the table to create and compromise on agreements. Otherwise, I don't think they'll ever have a focus to do so. (140C, p. 9)

Another CCC president who believed existing CSU ADT and UC TAG pathways are "working quite effectively" (136C, p. 11) believed that more work can be done in communicating existing pathways to students and guiding them through the transition process.

Impact of UC and CSU Capacity Constraints on Transfer Students

Lack of state funding for enrollment growth in turn creates a bottleneck for students as many UC and CSU campuses suffer capacity constraints to admit all transfer-eligible students. While guaranteed transfer pathways like CSU ADT and UC TAG have helped streamline transfer requirements, they are not available for all majors or all campuses. Also, most CSU campuses give local transfer students preference in admission selection compared to nonlocal counterparts. A CSU president elaborated on this process:

They get a boost in their what we call the index because they're local. So, we essentially admit two different populations of students. We admit students who are local who meet minimum qualifications, and then the students who are not local have to meet much higher qualifications because they are thrown into a pool without that local preference available to them. (112B, p. 10)

Capacity constraints further increase transfer admission selectivity, which in turn forces CCC transfer-intending students to complete major prep for multiple UC and CSU campuses to increase their chance of admission to at least one campus. This process in turn can increase the number of unnecessary units and time to successful transfer and baccalaureate completion. In

essence, capacity constraints feed back into the negative loop that further perpetuates more capacity constraints.

A UC CEO shared recent data for their campus; they identified that their admitted CCC transfer students previously attended up to nine different CCCs. With rampant swirling of CCC students to obtain the classes they need, whether they are a first-generation or fourth-generation college student, "Most students are going to need help navigating that complex landscape to get all the courses they need" (106A, pp. 18-19). Students who attend more than one community college are presented with additional challenges as articulation for what on the surface appears to be the same course across different CCCs does not always satisfy the same general education transfer requirements. This is another example of how *you need a college degree just to be able to navigate the articulation complexities that exist in California higher education*. A CSU president poignantly stated,

> We shouldn't let them go through rings of fire, multiple rings of fire, in order to say, all right, you're worthy, you are coming to us, to [CSU]. It should be streamlined as easy as it is to go from a high school to the community college. (132B, p. 26)

Improving Vertical Transfer Pathways in California [RQ2]

Nearly half (UC $n = 4$, CSU $n = 4$, CCC $n = 14$) of California public higher education leaders identified intersegmental relationship building and collaboration as one of their top three challenges or areas of opportunity. Of the 22 suggestions, six participants (UC $n = 2$, CSU $n = 1$, CCC $n = 3$) referenced increasing collaboration with high schools, six CCC presidents referenced increasing collaborative efforts with local private universities, and the remaining pertained to CCC and 4-year collaboration (UC $n = 4$, CSU $n = 2$, CCC $n = 12$). The main focus of increasing intersegmental collaboration is to streamline articulation (UC $n = 5$, CSU $n = 2$, CCC $n = 12$),

develop common course numbering (CCC *n* = 4), and integrate technology to share data to track

student movement (UC *n* = 1, CSU *n* = 2, CCC *n* = 4).

A CCC president elaborated on the need to leverage technology more to streamline

student experiences:

> Why are we not talking about co-enrollment opportunities in reverse transfer
> opportunities for students by leveraging our technology in a way that allows transparency
> for our campus, our counselors to see what's happening across these systems. And for
> students to be able to have an experience across systems before they even transfer. And
> so, I think there are some missed opportunities that we have to close the gaps for
> students, and not have a student start over again. Meaning that I now have to go through
> the whole orienting process of higher education at another institution if I choose to start a
> community college first. (143C, p. 14)

A different CCC president shared similar concerns:

> Our systems here in California I think just create more challenges for students. I just wish
> that our systems were a lot more aligned, and they were just more streamlined in terms of
> processes, and information, and data you know that's shared between our systems. (131C,
> pp. 13-14)

When asked for ways to improve the transfer function in California, a UC CEO brought

to light the multitude of pathway programs, websites, and application processes indicating that

communication to students needs to be streamlined to reduce confusion. These items include

ASSIST, UC transfer pathways, UC transfer pathways plus, UC transfer admission planner, UC

transfer alliance program, TAG, UC dual admission program. The UC CEO elaborated,

> And what I would love to see the University of California do is create some sort of
> system that takes all of these disparate systems and pull them together and in one
> organized way that help the student navigate their individual circumstances, to point them
> to the pathway that's right for them, based on where they are in their education program.
> And I acknowledge that doing something like that is not an easy list, but what we have
> now is just, it's just not helpful. And at the end of the day if it's confusing for an
> admissions director, it's confusing for somebody that understands the process, so to
> expect a transfer student to have to navigate through all of that, to expect a transfer
> counselor to help a student navigate that, it's not reasonable. (118A p. 18)

When asked the same question, a different UC CEO believed there is much room for

improvement and identified simplification and uniformity across UC as a top need:

> The transfer pathways to certain majors, that has to be there, has to be more coordination there so that students in the community colleges know exactly what courses that they need to take, and they need to know exactly whether or not those courses will meet certain requirements and whether they'll transfer. (123A, p. 22)

A CCC president shared similar opportunities to streamline pathways at CCCs:

> Having course offerings that are, that allow for seamless transfer, that allow for timely transfer, and that's our responsibility as a community college to make sure that we're building those courses sequences, and that we're offering those course sequences that allow students to graduate on time, and graduate with less debt. (113C, p. 21)

A CSU president shared efforts they are engaged in to reduce the evaluation time of credits for

incoming transfer students as well as "developing transfer orientations that really focus on their

needs and ensuring that they have rooms and classes so they can step into the appropriate

courses" (141B, p. 16). The same CEO commented that transfer student success metrics are

stronger than their FTF counterparts, which "tells me that those pathways are really starting to

improve and to work well" (141B, p. 16).

When asked what federal or state policies they would like to see altered to increase the

efficiency of baccalaureate attainment, a UC CEO wanted identical articulation for transfer-

intending students so the same set of coursework at the CCC would meet admission requirements

across all UC and CSU campuses and elaborated:

> If you want to be a biology major these are the courses that you take, and they will articulate to another course at any UC/CSU. And you don't have to take one additional course if you want to go to UCLA or UCR. That's the kind of legislation that would make a difference. But I don't see that ever happening. (118A, p. 20)

The reason this UC CEO gave was faculty autonomy in program and curriculum development.

Other UC CEOs also cited concerns that articulation needed to be improved to increase

baccalaureate access for CCC transfer-intending students.

Throughout the course of interviews, two CCC presidents mentioned the proposed legislation (AB 928), which would require one uniform general education pattern. One spoke of their concerns regarding a systemwide approach:

> The problem I have with the statewide systemic approach is that it doesn't recognize the regional variation that occurs within our state. It doesn't address privates very well, and it doesn't recognize the diversity of UC programming that you have and even CSU programming. So, I'm highly skeptical of those approaches, because I think that if people like me are doing a good job with our regional partners, my colleagues who are pure presidents or pure chancellors, we're the ones that should be pushing our faculty to have those conversations and helping to eradicate those barriers at a regional levels. (121C, pp. 4-5)

When asked for ideas on improving the transfer function in California, a CSU president stated, "We have to think about how many we can actually absorb in our face-to-face kinds of courses. I think that's the really challenge to be honest. We're bringing in kind of the maximum number of transfers right now. So, if we see more there's going to be some access issues" (141B, p. 17). This president highlighted initiatives underway to address these capacity constraints, which included offering two new fully online programs in fall 2021 with 20 more in the works, including engineering. Expanding online program offerings is imperative, as the CSU president noted:

> Expanding the numbers of students who say complete associates degrees and are looking to continue. But it also addresses the needs of students who have some college and no degree who may have dropped out. So those adult learners, people who might be working, may have other family obligations and the like, and so need a different kind of modality. (141B, p. 18)

Even though the funding structure for fully online CSU programs is not state supported but administratively self-supported, they are still Pell eligible programs, and the president shared that students actually end up paying less as a result of different fee structures.

When discussing barriers that may inhibit students from transferring, a CSU president identified lack of belonging and support services throughout transition period as areas of opportunity for improvement:

> I think that, in the same way that students in high school take college credit classes on some community colleges and even some 4 years, I think we can also think about creating opportunities to invite students to engage much earlier. So that even if they're in a community college, they can be taking a class online or doing something else, or even in person, at a particular 4-year to help them kind of psychologically navigate that space. (139B, p. 13)

This president added the importance of psychological supports, "providing [students] with the intellectual and behavioral discipline to be able to manage the rigors of study" (139B, p. 13).

Similarities and Differences Across UC, CSU, and CCC Leader Perceptions [RQ3]

Systemic Barriers That Affect California Student Baccalaureate Access and Completion [RQ1]

Participants collectively identified eight major systemic barriers that inhibit California baccalaureate attainment: (a) California higher education funding structures: campuses/CEOs lack full control of income and expenditures ($n = 45$); (b) capacity constraints at most UC and CSU campuses to admit all eligible undergraduate applicants ($n = 31$); (c) state and federal student financial aid formulas and eligibility requirements ($n = 27$); (d) equity gaps persist in high school ($n = 8$) and college ($n = 18$); (e) declining public opinion on the value of a college degree ($n = 11$), (f) California higher education policymaking practices ($n = 17$); (g) deficient intra and intersegmental collaboration (e.g., application processes, admissions requirements, course articulation, graduation requirements, etc.) to establish seamless academic and career pathways ($n = 23$); and (h) faculty control of curriculum, especially as it relates to streamlining existing pathways ($n = 16$). Similarities and differences across UC, CSU, and CCC executive leaders regarding these eight themes are examined in more detail in the following sections.

California Higher Education Funding Structures. While state funding was cited as the number one challenge of executive leaders across all three segments (UC = 100%, CSU = 100%, CCC = 93%), UC (56%) and CSU (25%) executive leaders spoke of historical declines in California higher education state funding while CCC presidents did not. Instead, two CCC presidents advocated that CCCs be given a larger FTES payout because it has always been significantly less than the UC and CSU FTES payouts. Similarly, a CSU president also advocated for a larger FTES payout to match that of the UC. UC (9.1%) and CSU (37.5%) executive leaders were also more likely to draw a correlation between budget and institutional quality, with no CCC presidents citing this concern. Furthermore, UC (18.2%) and CSU (37.5%) executive leaders discussed the importance of maintaining their reputation, while CCC presidents did not. Additionally, UC (36.4%) and CSU (12.5%) executive leaders were more likely to comment on the importance of funding infrastructure, deferred maintenance, and capital outlay. UC (18.2%) and CSU (25%) executive leaders were also more likely to discuss the impact of flat tuition on their operating budgets, while CCC presidents did not.

Through state funding allocations, the California legislature controls enrollment growth, or lack thereof. Across all three segments (i.e., UC, CSU, CCC) enrollment management was one of the top challenges cited by California public higher education executive leaders; however, UC (36.4%) and CCC presidents (32.1%) were more likely to discuss enrollment management concerns then their CSU counterparts (12.5%). Lastly, UC (54.5%) and CSU (25%) executive leaders were more likely than CCC presidents (3.6%) to be concerned with the ideology shift that higher education is no longer perceived as a public investment.

Capacity Constraints. When asked for their perceptions regarding California student access to baccalaureate-level education UC (27.3%) and CSU (25%), executive leaders were

more likely to share positive comments compared to CCC presidents (7.1%). However, UC (54.5%) and CCC (60.7%) executive leaders were equally likely to mention capacity constraints within UC and CSU. CSU presidents (87.5%) were more likely to reference regional differences in capacity constraints. However, CCC presidents (25%) were the only participants to elaborate on how students in rural regions are disproportionately impacted, and for a variety of reasons cannot travel great distances to attend a 4-year school. Additionally, CCC presidents (46.6%) were more likely to comment on the need to identify and rectify student equity gaps, when compared to their UC (27.3%) and CSU (25%) counterparts. While executive leaders across all three segments suggested that California is not adequately meeting labor market demands for baccalaureate degree earners (UC = 9.1%, CSU = 12.5%, CCC = 17.9%), UC (54.5%) and CSU (62.5%) executive leaders were less likely to support CCCs offering more baccalaureate programs, when compared to CCC presidents (82%).

Student Financial Aid. While most participants cited concerns regarding student access to financial aid, UC (81.8%) and CSU (75%) executive leaders were more likely to discuss this compared to their CCC counterparts (42.9%). Perhaps this is because tuition at CCC is significantly less than at UC and CSU. Additionally, CSU (62.5%) and UC (18.2%) executive leaders were more likely to advocate for doubling Pell Grant payouts and incorporating COLA into financial aid calculations (UC = 18%, CSU = 25%, CCC = 10.7%), whereas CCC presidents (10.7%) were more likely to advocate for increased Cal Grant payouts. Furthermore, CSU (25%) and UC (18.2%) executive leaders were more likely to discuss the need for increased funding to provide more on-campus student housing compared to their CCC counterparts (7.1%). While some participants did indicate that tuition in California is lower than many other states, sometimes the sticker price alone can scare off many students and families from ever applying.

As such, several participants discussed the knowledge barriers surrounding sticker price versus net price, especially for neo-traditional students, an item more frequently discussed by CSU (25%) and CCC (14.3%) executive leaders when compared to UC (9.1%) counterparts.

Equity Gaps. As the premier institution in California, it is no surprise that when asked what systemic and institutional barriers inhibit access to baccalaureate level education, UC CEOs (36.4%) were more likely to cite concerns of inequitable access to college prep courses in high school than their CSU (12.5%) and CCC (10.7%) counterparts. In addition to identifying inequitable access to college-prep courses in high school, many participants discussed equity gaps for their respective institutions. Participants across all three segments acknowledged that equity gaps still persist and are a top priority; however, CCC presidents (46.4%) were more likely to discuss equity gaps at their institution, compared to UC (27.3%) and CSU (25%) counterparts.

Public Opinion on the Value of a College Degree. When asked what systemic and institutional barriers inhibit baccalaureate completion, the public's declining mindset toward the value of a college degree was discussed by several participants. CSU (62.5%) and CCC presidents (21.4%) spoke of the importance in communicating the value of higher education to the larger public, while UC CEOs did not. Perhaps UC CEOs assume the value is implied since they are ranked as a leading research institution or referred to as a "public ivy."

California Higher Education Policymaking. Throughout the course of participant interviews, the topic of the 1960 CMPHE was brought up in various contexts. UC (18.2%) and CSU (12.5%) executive leaders were more likely to mention the CMPHE with positive regard, while CCC presidents did not. Conversely, CCC presidents (25%) were more likely than their

UC (9.1%) counterparts to share concerns that it is outdated and does not address present higher education realities. A CCC president elaborated on this:

> I think, keeping up with the times is always good, I think it was perhaps the best idea and the best system developed at the time, but I think now has its limitations, based on how we have to transfer students and community colleges have grown so much and our population is so large that mathematically it does not makes sense to transfer people that were like there's not enough seats. (100C, p. 15)

Executive leaders across all three segments also made mention of differences in California public higher education legislative and governance structures (UC = 18.2%, CSU = 12.5%, CCC = 10.7%).

CCC presidents (39.3%) were more likely than their UC (27.3%) and CSU (25%) counterparts to provide commentary on the influence of state legislature and other policy actors. Additionally, two CCC presidents alleged that UC controls the state legislature, and therefore can side-step some mandates (e.g., SB 1440). CCC presidents (14.3%) were also more likely to note the impact of various political climates, compared to only one UC CEO and no CSU presidents. However, on the topic of out-of-state enrollment caps, UC CEOs felt the need to justify the value they bring to the broader learning community as well as the state economy after graduation.

Deficient Intra and Intersegmental Collaboration. When asked what systemic and institutional barriers inhibit baccalaureate completion, a higher percentage of CCC presidents (57%) focused on unclear academic and transfer pathways, whereas a higher percentage of UC (36%) and CSU (37.5%) executive leaders commented on the need to improve accurate and timely advising of existing pathways. Throughout the course of interviews, only four participants made unprompted positive remarks toward existing academic pathways. UC (18.2%) and CSU (12.5%) executive leaders were more likely than their CCC counterparts (3.6%) to provide

positive remarks regarding existing transfer pathways. Conversely, CCC presidents (35.7%) were more likely than UC (27.2%) and CSU (25%) executive leaders to highlight areas of concern. Also, CSU (25%) and CCC presidents (17.9%) were more likely to suggest improvements needed to streamline existing transfer pathways. When asked for the top three institutional or systemic barriers that inhibit transfer-eligible students from transferring to a 4-year school, UC CEOs (27.3%) were more likely to blame the lack of uniformity and complexity of admissions requirements, compared to CSU (12.5%) and CCC (10.7%) presidents. Lastly, one third of CCC presidents shared concerns regarding ADT legislation, whereas UC and CSU executive leaders did not.

Many California public higher education leaders identified intersegmental relationship building and collaboration as one of their top three challenges or areas of opportunity (UC = 36.6%, CSU = 50%, CCC = 50%). Executive leaders across all three segments (UC = 18.2%, CSU = 12.5%, CCC = 10.7%) mentioned the need to increase collaboration with local high schools. Not surprisingly, CCC presidents (21.4%) were the only participants to mention increasing collaboration with local private nonprofit universities. Additionally, CCC presidents (42.9%) were more likely than their UC (36.3%) and CSU (25%) counterparts to reference strengthening collaboration with their intersegmental counterparts. While executive leaders across all three segments (UC = 9.1%, CSU = 25%, CCC = 14.3%) suggested intersegmental technology and data sharing, CCC presidents were the only executive leaders to suggest development of common course numbering (14.3%).

The Role of Faculty. The last major systemic theme that emerged when participants were asked to identify present barriers to California student baccalaureate access and attainment related to the role and power of California faculty. Five participants (UC *n* = 1, CSU *n* = 1, CCC

n = 3) made general statements about the importance of gaining constituent buy-in, not necessarily calling out faculty specifically. Further, CCC presidents (17.9%) were the only ones to identify faculty resistance to change as one of their top three challenges as CEO of their respective campus. However, throughout the course of their interviews, both UC (27.2%) and CCC (21.4%) executive leaders discussed the power that faculty hold in California. Furthermore, CCC presidents (21.4%) were the only ones to suggest that mandating change through legislation seems to be the only solution to address faculty resistance to change. When asked what strategies California public higher education executive leaders use to address faculty control, the use of financial levers was more likely to be suggested by CSU (25%) and UC (9.1%) executive leaders compared to CCC presidents (3.6%). As UC and CSU faculty are afforded more privileges, such as lab space, release time for research, and teaching assistants, it is no surprise that fewer CCC presidents discuss the ability to manipulate through financial levers.

Institutional Practices That Affect California Student Baccalaureate Access and Completion [RQ1]

When asked for the top three barriers that inhibit baccalaureate access and completion for California students, participants also identified several institutional or site-level barriers. Three overarching themes emerged: (a) the rigid historical nature of higher education, which operates under a compliance model (*n* = 9) creates (b) bureaucratic roadblocks (*n* = 12), and (c) inefficiencies (*n* = 26), which reduce institutions' ability to meet the diverse needs of neo-traditional students. UC (9.1%) and CCC (7.1%) executive leaders were more likely to perceive that California higher education is stuck in a tradition of rigid practices and processes. However, UC CEOs did not refer to the "compliance model" under which CSU (12.5%) and CCC (14.3%) executive leaders stated they operate. UC (18.2%) and CSU (12.5%) executive leaders were

more likely to voice concerns over course scheduling practices that are not student-centered, while CCC presidents did not. However, CSU (37.5 %) and CCC (7.1%) presidents were more likely to express their satisfaction of recent remedial education reform. Lastly, when asked what systemic and institutional barriers inhibit baccalaureate completion, UC (45.5%) and CSU (37.5%) executive leaders were more likely to reference a need to increase accurate and timely advising compared to CCC (3.6%) counterparts.

Societal Determinants That Affect California Student Baccalaureate Completion [RQ1]

Many California public higher education executive leaders commented on the changing student demographic that has occurred. As the percentage of neo-traditional students continues to rise, the need to provide specialized services to support their unique needs is evident. In addition to the systemic issues surrounding existing student financial aid structures, participants identified several student micro and meso barriers that can inhibit neo-traditional student baccalaureate access and completion. UC and CCC executive leaders were more likely to reference neo-traditional students' lack of social capital (UC = 18.2%, CSU = 0, CCC = 21.4%), and knowledge barriers (UC = 18.2%, CSU = 0, CCC = 17.9%), whereas CSU presidents were more likely to discuss their lack of self-esteem and sense of belonging (UC = 18.2%, CSU = 50%, CCC = 10.7%). Neo-traditional students' increased need for various basic needs was cited by executive leaders across all three segments. However, UC CEOs only directly referenced their increased need for affordable housing (UC = 18.2%, CSU = 25%, CCC = 21.4%) and mental health services (UC = 27.3%, CSU = 0, CCC = 7.1%). Food, transportation, textbooks, technology, and childcare were also explicitly mentioned by CCC presidents.

California Transfer Climate [RQ2]

Most participants highlighted the importance of the CCC transfer pathway to UC and CSU, which increases neo-traditional student access to baccalaureate-level education. And UC and CSU executive leaders talked highly of their transfer students when referencing their higher 2- and 4-year graduation rates when compared to their FTF counterparts. However, as a couple of UC CEOs shared, some campuses and faculty are more reluctant to embrace transfer students than others, and efforts to fully recruit and embrace them has only occurred in more recent years. Also, it appears that UC sentiments of elitism still pervade, as indicated by the language and statements several made when referencing CCC students and instructional quality. Overall, CSU presidents spoke more favorably of CCCs than most UC CEOs.

California Transfer Pathways [RQ2]

The top concerns surrounding California transfer pathways include (a) complexity of application and admission requirements, (b) lack of uniform articulation within and across systems, (c) and impact of capacity constraints. Seven participants spoke of the lack of uniformity and complexity of application and admissions requirements (UC $n = 3$, CSU $n = 1$, CCC $n = 3$) with a UC CEO sharing, "It's just so complicated and convoluted that you almost have to have a degree to navigate the transfer process" (118A, p. 15). UC and CSU executive leaders were more likely to provide positive commentary on existing transfer pathways (UC = 18.2%, CSU = 12.5%, CCC = 3.6%), whereas CCC presidents were more likely to highlight areas of concern (UC = 27.3%, CSU = 25%, CCC = 35.7%). CSU and CCC presidents were equally likely to identify intersegmental collaboration as an area of opportunity for improvement (CSU = 50%, CCC = 50%) and more so than UC executive leaders UC (36.4%). For leaders across all three segments (i.e., UC, CSU, CCC), the primary focus of increasing intersegmental

collaboration was to streamline articulation (UC = 45.5%, CSU = 25%, CCC = 42.9%); however, CCC presidents (14.3%) also identified a need to develop common course numbering. While ADTs have helped to streamline required major prep for CSU transfer-intending students, it is not available for all programs of study, like engineering or nursing, or offered by each CCC. Also, one third of CCC presidents shared concerns regarding unequal enforcement of ADT legislation across CSU.

Attitude Toward Intersegmental Partners [RQ3]

Interview video recordings and transcripts were each reviewed at least three times to analyze the language and tone used by participants. Generally speaking, several UC CEOs were more authoritarian, and several spoke with an air of arrogance. In fact, two were bold enough to identify the elitism that they UC was founded upon, one stating, "I'm a UC snob; I think we do a really good job and I think that the people of California deserve as high quality an education as they can get" (146A, p. 19). A CCC president would agree, as they noted, "UCs have traditionally had a very, and rightfully so, a very strong opinion of the rigor and the academia that they provide. They do a good job at that … some of them are the best-known universities in the world" (140C, p. 9). When analyzing interview transcripts of 11 different UC CEOs, tones of arrogance and elitism permeated. These sentiments are evident in the following comment, "We are a high functioning place, which means we also have high expectations of what we're going to do. We're not going to do anything poorly. And that again takes resources" (119A, pp. 15-16).

In interviewing CEOs from all three segments (i.e., CCC, CSU, and UC), various sentiments and attitudes towards one another were revealed. When analyzing the language and tone of responses by UC CEOs it became apparent that several held concerns of educational quality and outcomes from CCCs as is evident in the following statement:

Even without offering baccalaureate programs, I think the community colleges can increase and improve access by really upping the quality of education they deliver … because the graduation rates at community colleges are pathetic. And a lot of people go in, but never come out. (107A, p. 7)

While several UC and CSU presidents made mention of the fact that CCC transfer student graduation rates are higher than first-term freshmen, several directly and indirectly referenced the CCC "leaky pipeline" analogy. A CSU president summarized this concept:

You take the cohort of students that shows up at a community college with the intention of eventually transferring and graduating from a 4-[year] institution, then it's not so good. I think a lot of the fallout, the dropouts happen at community college. There's only a relatively small fraction of the students who originally intended to do that end up doing it. (135B, p. 15)

This same president attributed the leaky pipeline in part to students "meandering aimlessly through the community college curriculum" (135B, p. 15) and again stressed the importance of developing 2 + 2 pathway programs between CCC and 4-year institutions.

While several participants referenced the leaky pipeline, analogy when talking about CCCs, a UC CEO took time to address this overused analogy:

The pipeline analogy, I just, we just want to smash that one up with the big old hammer and it's because it assumes that everybody enters at the beginning and then that a few of them come out the other end, many of them leak out. That's not the way life works, right? So, students will be on many different pathways probably in their careers. And what we need to do is to build on ramps and bridges that connect the pathways. So that the one pathway is for community college students to start a community college and then transfer. That's a pretty well-worn pathway. We can strengthen that pathway by more than articulation agreements, but real major pathways that start with the community college, maybe even start in high school. … Another thing is that some students will go to community college and with an idea of achieving some kind of certification or an associate degree. And they will go to work for a while and then be ready to at some time later come back to school. And so, we need to be able to you know accommodate all of those kinds of pathways. (134A, pp. 9-10)

When asked if there is any role for CCCs to play in offering baccalaureate education, one UC CEO was concerned that most CCC faculty don't hold a PhD, and therefore, "the quality of the education would not be strong enough around workforce development" (142A, p. 7). Another

UC CEO had concerns about how that could potentially transform the structure of CCCs, but

more so that

> there's sort of the issue of quality control as well. We work very hard, as does the Cal
> States, to recruit an outstanding scholarly faculty that can take everyone, all the way up to
> the highest level of baccalaureate-level knowledge that you need in lots and lots of
> disciplines. I don't even know that there are enough faculty to accomplish the same thing
> within the community college ecosystem. (146A, p. 18)

However, just a few moments later, this same CEO further added, "I mean you're even seeing

some quality control issues within Cal States" (146A, p. 19).

> Another UC CEO stated that quality at CCCs was more dependent on program of study:

> The idea that CCC teaching and curriculum is not as good as UC/CSU, some aspects of
> this idea are true because UC/CSU have more resources, especially surrounding research
> opportunities. But sometimes CCC curriculum and teaching are better depending on the
> specific program. (145A, p. 1)

This same UC CEO did not hesitate to show support of CCCs offering baccalaureate programs,

stating "Yes absolutely," especially to meet regional high-demand careers where UC/CSU

cannot produce enough graduates, like nursing, cybersecurity, teachers, and business leaders.

The CEO added, "Why wouldn't we let CCC offer these? Take the Inland Empire for example, it

has the population of Montana state but only CSUSB and UCR" (145A, p. 2).

Another UC CEO did not directly make derogatory remarks regarding CCC instructional

quality yet spent a long time bragging about the quality of UC faculty, several of which are

Nobel laureates, and even provided accolades to part-time UC faculty. So, in a very indirect way

there was still a tone of arrogance when comparing UC instruction to CCC instruction. A CSU

president also tiptoed around their feelings toward CCC faculty elaborating on their lower

division teaching strategies, identifying liberal arts and research as missing pieces at CCCs,

attributing this to different tenure incentive structures. However, toward the end of the interview,

this CEO was painting a more positive picture of CCC faculty, stating, "I think the truth is, the

quality of instruction at the community college is actually pretty good in a lot of them. We share

a lot of faculty, particularly in those early levels" (141B, p. 17). A CCC president shared a

similar counterargument:

> Other than elitism, there, there is no reasonable reason why California community colleges [cannot offer baccalaureate degrees]. Many of our faculty members, myself included, teach at the CSU and the community college at the same time. So, it's not a matter of training or degrees, it's just literally a matter of the master plan for education in the state of California. And the faculty unions in the CSU more so than the UC. (129C, p. 15-16)

> However, the stigma of elitism pervades, as a CSU president illuminated in this

statement:

> For the most part we look to the UCs because this is where the research is happening, and this is where the prestige and whatever else lies. But in the grander scheme of things, we, the CSUs are a critical partner in the future of what California becomes after the pandemic now more than ever. (132B, p. 29)

This president does not think that "the CSUs have been given the proper place and the proper

value within the California economy" (132B, p. 29). In 2019, CSU supported over 209,000 jobs

and $26.9 billion of industry activity (CSU, 2021a).

The same CEO shared their belief that CSU faculty work more than those at any other

institution, carrying a full teaching load of four classes per term, plus research, scholarship,

board development, and community outreach work. As a former CSU professor, this CSU

president witnesses the shift of CSU operating with a teaching mission from 1970 to the mid-

1990s. But CSU has taken on other missions over the last 25+ years. This CEO believes that the

CMPHE is outdated and needs revision, revision that is less restrictive for all three segments.

The CEO offered one such example that has profound impacts, sharing, "I see how a doctorate at

[CSU] literally creates instant leaders within our community" (132B, p. 30). this president is of

the opinion that "the UCs cannot produce all the PhDs; they cannot produce all the doctorates in

education (EdD)" (132B, p. 30). This same president makes the argument that CSU does more to positively impact social mobility through access and research opportunities, stating that research and innovation "really impacts directly our communities. And when I say that I mean the following, 80% of our students stay in the region, what other UC can claim that" (132B, p. 31). A different CSU president holds similar sentiments outlining the necessity to change "the mindset of the external world, the corporate community and other folks" about what CSU offers and the far-reaching value (139B, p. 16).

Leading California Public Higher Education Amidst Multiple Complexities [RQ4]

California public higher education executive leaders face a multitude of complexities built-in to the structure of California higher education. These include multiple and sometimes competing missions, programs, or initiatives. As a public higher education CEO, they must facilitate alignment between macro (federal, state, systemwide), meso (regional industry, local city governance), and micro (institution, district) forces. Navigating relationships with donors, local industry partners, labor unions, board of trustees/board of regents, system offices, accrediting bodies, federal legislation, California legislator and governor turnover, and local control boards is no easy feat. As a California public servant and "at will" employee, they are not afforded the same protections as tenured faculty and classified professionals. Therefore, maintaining collegial relationships with internal and external constituents is a foundational requisite. Throughout the course of interviews, participants identified several frustrations related to leading amidst a compliance environment. Also, participants were asked about their decision-making strategies and how they prioritize human and fiscal resources on their campus. Participants made it clear that top-down leadership approaches do not work in the California public higher education ecosystem, a result of faculty power in two arenas: (a) academic policies

(via Academic Senate) and (b) working conditions (via labor unions). Leadership practices

shared throughout the course of interviews collectively embody those identified by Kouzes and

Posner (2017, 2019): (a) model the way, (b) inspire a shared vision, (c) challenge the process,

(d) enable others to act, and (e) encourage the heart.

Initiative Fatigue Resulting From a Compliance Environment

Several participants spoke of "initiative fatigue" and shared a sense of operating under

"crisis management," being forced to put out one fire after another. Throughout the course of

interviews, six participants mentioned the feeling of initiative fatigue they experience as a result

of the numerous initiatives and mandates that come down the line from various macro-level

stakeholders (e.g., federal, state, system offices, accrediting bodies, local government, etc.). As

one participant shared, "A lot has come down the pipeline in the last couple years and we are

spread a little thin on initiatives, and we kind of have initiative fatigue. So, if there's ways to

narrow that focus, it would be good" (140C, p. 14). Another participant noted, "It's challenging

sometimes because if the rules change a little too much, obviously it's hard to pivot for

something that may or may not work" (100C, p. 9). A CCC president from a smaller campus

elaborated on the concept of initiative fatigue:

> It is the same handful of people to look at everything. And you kind of feel like you're
> being bounced over here, and over here, and every single one is important, so do them all
> today. And at some point, how do you work at them all ... and some of it's starting to feel,
> because I've been around a really long time, it's starting to feel repetitive, like this is just
> the same thing packaged with new words. (128C, p. 18)

Another CCC president shared an inside joke that their executive cabinet expresses:

> We have an expression, and we say stop helping. Because the Chancellor's Office says
> they're trying to help us, and so when they do that kind of stuff over and over, kind of our
> catch all phrase is "stop helping." Because it really can get frustrating. (127C, p. 11)

Several participants shared how initiative fatigue makes staying mission-driven more challenging. One shared, "Through all of the initiatives and sort of the initiative fatigue, it's the difficulty of making sense of it all to and presenting a narrative, a common narrative and a vision to the campus and to the community" (121C, p. 6). Another participant spoke of initiative fatigue and their role managing it as president:

> From the college perspective, it is overwhelming. And there are just so many things that we're expected to do. And all I hear constantly, and I'm sure it's a constant theme across our system, is that you know, not one more thing. We cannot take on one more thing in what we're doing. And so, what is important for me as I communicate where we're moving, and what our responsibilities are, is alignment. And I'm so focused on aligning our goals from the macro level all the way down to individual goals. (131C, p. 9)

Many of the initiatives and mandates that get passed onto CCCs are from the CCCCO. As such, several CCC participants shared their personal opinions regarding Chancellor Eloy Oakley and his staff. Two CCC presidents strongly believe that CCCCO leaders do not have relevant experience working on the ground at a CCC, and therefore their initiatives are not always well-received by CCC constituents. Another CCC president shared that oftentimes faculty feel like they are left out of decision-making conversations, and as a result, faculty will "kick and scream" (120C, p. 5) and "dig their heels in" (115C, p. 4) when a new initiative comes down the line. A different CCC president shared a conversation they had with Chancellor Oakley, in which they asked him why so many new initiatives were being rolled out. The president shared more:

> Privately I said, "Dude, you're killing us." I can't remember what [initiative] it was at that point. It might have been that that darn integrated plan or that comprehensive plan. And he just says, "Sometimes we [CCCCO] just work too fast and we throw things together and then realize it will work or there's a better way or it gets pushed." And what are you gonna say that? You know he's honest. He just says, you got to learn to adapt. And so that's kind of what we've learned to do here, is adapt and not get so buried down into blame and all that stuff. (127C, pp. 12-13)

A different CCC president attributed the short timelines to the following:

I think it's also a part of the current attention deficit society we have. So, the legislature and the governor and then chancellor like need these immediate outcomes. And so, if they don't see them immediately, then they feel like they have to retool it or redo it or change it, because it didn't happen. (115C, p. 11)

A few participants believe focusing on the mission of the college will ultimately enable some alignment with various systemwide and legislative mandates. A participant suggested, "Look at what the goals or outcomes of the mandate are, or the requirements are, and figure out where you're already doing it so that you're not starting all over" (103C, p. 10).

Another participant shared,

You know most things are not completely far-fetched and new. It is usually something that we're already doing at the college that aligns with it. So, I try and see how it fits in our current structure. That's the only way anything's going to be a success. If it's seen as something that's on the side, you know it'll be a one and done. You know you'll do it, and then it'll be done. You have to really integrate it into your systems and integrate it into your college structure in order for it to be a success. So that's what I look for. What is it already aligned with? And you know, how does it affect our mission? And then go from there. And what kind of champions that I need, and it needs, to be successful. (144C, pp. 13-14)

Another participant noted,

And so, the biggest challenge is to help our college understand what are things that we're going to tinker around the edges and try, right to see if they advance the outcomes for our students and advance our mission, and our strategic goals associated with that. And then what are they actually are going to commit to and go all in because if not, it feels like a flavor of the month, right? And you'll hear that a lot from faculty, "Oh it's just one more thing. We'll just stall it out and not do it, and then eventually it'll go away and something else will happen, right?" And so, I think it's about when we have system expectations, when we have expectations that come from other external organizations, how do we make that fit within the work that we're doing that we know is effective and high impact, and that is responsible that we can sustain it at our institution. (143C, p. 6)

Five participants (UC $n = 1$, CCC $n = 4$) noted that they often agree with the various initiatives and legislative mandates; as one shared, "Because the status quo has not worked, and we need to inject new ideas and initiatives to shake things up. And sometimes you have some storming before you get to norming" (117C, p. 10). Another participant noted, "I do appreciate

accountability … as a taxpayer. I appreciate it as an administrator that really is focused on

students and funding going really where there's high impact instead of things that I would just

love to do" (143C, p. 11). A different participant shared a different viewpoint on legislative

change:

> I do think it's possible to effect change legislatively. I'm not necessarily sold that that's the best way to make change, but I do concede that there have been times when our institutions have been so slow at acting on their own for a number of incentives and disincentives that bind us that that legislation has resulted in some good things. (101C, p. 15)

While five participants spoke favorably of legislators and their respective system offices forcing

their hand, they also identified challenges that unfunded mandates pose:

> There has been significant budget reductions and so you know with less people at the helm it is harder to put in place all the initiatives that are critical. And so, from that standpoint, that would be my critique is in terms of providing resources to be able to do the initiatives. (130C, p. 9)

> I believe, very often, in the spirit of what they were trying to push. And I find that the challenge comes with the unfunded mandates, because if they're unfunded mandates and that's when it puts the stressor on having to shift priorities at a campus or college level. So, if they're unfunded, or if the rollout for implementation has not included various constituency group input. (133C, pp. 9-10)

> The problem is it's hard to do them all well when you're under resourced. So, I would say that the intention is honorable, but maybe the implementation is shaky. So, when you have so many initiatives going on simultaneously it's difficult to evaluate them. It's difficult to implement them. (117C, p. 9)

> I think the challenge that we have is the state would never have enough resources to fully implement that. But they would ask and in certain areas mandate, that institutions engage or adhere to these new regulations. I think the challenge was, that we, the resources wouldn't always be there, so they weren't able to, the 116 community colleges couldn't implement them equitably across the state. (136C, p. 8)

The same president added that sometimes initiatives, especially those that are categorically

funded (e.g., such as Mathematics, Engineering, Science, Achievement [MESA], Extended

Opportunity Programs and Services [EOPS], and TRiO) are in direct competition with each other

(136C). They elaborated,

> Sometimes those categorical dollars are very specific, and a promise program is not a
> categorical, but it may be doing some duplicative type of work. And so, institutions may
> have to make some decisions on how much they put into a promise program versus what
> they're already doing under an EOP program. (136C, p. 8)

Additionally, a different participant spoke of duplication of efforts that can carry across different

initiatives. Another participant added, "In ed code and Title V, there's contradictions in there that

are really hard to grapple with. And you have to identify which trumps what, and then kind of

lead in that direction. So, I think we see those incongruencies in many of the things that we do"

(143C, pp. 7-8). Later in the interview, the same participant added, "I understand the intent of a

lot of those things, I understand the politics around some of those things, but they become

challenges and conflicts and, quite frankly, tensions are developed on college campuses" (143C,

pp. 9-10).

A couple of participants shared that initiative timelines often do not allow ample time to

be evaluated before changes are made or new initiatives implemented. A CCC president

elaborated,

> The issue for us is that we change these initiatives or these mindsets or these ways of
> doing business every 3 to 4 years, but we calculate and review data in 6-year increments.
> And so, you haven't even seen the outcome of this proposal or this idea before you're on
> to the next. And the outcomes of whether or not this one was effective comes two to three
> years after you started the new one. (100C, p. 9)

A participant also brought light of the importance of evaluating new initiatives and programs,

stating, "Whatever you put in place, you put one initiative in place, you're not doing yourself any

good if you just do the initiative and don't assess it every year and try to improve from it" (127C,

p. 10). Later in their interview, they also suggested that all higher education reporting agencies

should better align so reporting demands are reduced allowing institutional leaders to spend more time on the "real work" (129C).

Lastly, a CCC president finds operating under a compliance model burdensome as it increases everyone's workload. They elaborated on this, sharing,

> You know I tend to not focus a lot on those things other than their reports. And I figured out a long time ago it becomes busy work. But you know when you realize that the state Chancellor's Office and the elected officials don't have the time to read all these reports that they're making us fill out, then you know, you just do it to meet the regulations and you really keep your focus on student success and moving the needle to whatever degree you can move the needle. … And so, I tend to not really focus on the mandates other than we get need to meet the reporting deadlines and provide the data that these folks are requesting knowing full well that the Chancellor's Office doesn't have enough staff to read 115 community college equity plans or … basic skill reports. So, we're just checking boxes unfortunately. (129C, p. 11)

They added that not all the mandates are bad; however, "in some instances become distractions ... it becomes busy work, it takes us away from the real work at hand" (129C, p. 11).

Decision-Making Strategies

Public higher education executive leaders are called to evaluate macro- and micro-level climates and priorities upon which they must act as a filter and buffer deciding which programs, initiatives, or resource requests are prioritized. Amidst these complexities, participants were asked how they prioritize human and fiscal resources on their campus. Collectively California public higher education executive leaders shared that decisions are a result of (a) strategic planning processes guided by (b) collective shared governance, (c) while attempting to ensure alignment with the institutional mission. A CCC president discussed the Community College League of California CEO tenure and retention research study that found the average tenure of a CCC president has fallen from a 6.9 year tenure (between 2000 and 2010) to a 5.1 year tenure between 2010-2020 (Mize, 2020). They said this was the result of adversarial faculty and union relations running presidents off, adding,

You've got this title, but you don't have any power. Like the easiest person to get fired is the president. So, you know that kind of informs, or should inform your decision making versus people coming in trying to make a lot of changes … people don't like change. (129C, pp. 8-9)

Monks (2012) reviewed presidential tenure between 2001 and 2006 across 787 institutions and found that turnover is higher in public higher education institutions, often leaving their position within 5 years. Shorter executive leadership tenure forces institutions to continually adapt to new leadership styles and directives. The same CCC president spoke of this, adding that on average it takes 3 to 5 years to shift institutional culture, so what can a president really accomplish if they stay at an institution less than 3 years? Bowman (2017) agreed, executive leaders need a minimum of 5 years to impart meaningful change. When asked a follow-up question about feeling they have no power, they responded, "I have the power of persuasion. I have the power of mediation. I have the power of relationships. And so, you know the power that I have is my communications skills, my problem-solving skills, my coalition skills" (129C, p. 9).

Several executive leaders referenced their institution's strategic plan or educational master plan (EMP), which is used to guide decision-making and resource requests. Depending on the school, strategic plans or EMPs mentioned run a 5- to 10-year cycle before they are reviewed and updated. The process of updating a strategic plan/EMP typically takes an entire academic year, as it goes through an arduous shared governance process. It is interesting to note that while college and university planning processes and documents run for 5+ years, the state higher education budget allocations are incongruent, and only planned in annual increments. This is a major disconnect.

Most participants spoke positively about shared governance practices. A CCC president shared that they were forewarned before taking their position as a California CEO that engaging in shared governance practices would be difficult. However, the president shared it to be a

positive experience noting, "I do think shared governance works. … It's a different way of doing

things, but you can still operate well within the parameters of shared governance" (100C, p. 6).

Another participant shared,

> I just believe wholeheartedly in shared governance, and I believe that I'm not shy to act
> in my role as college president and to use my administrative oversight when I need to.
> But I do believe in collective input. I believe in collective wisdom. (133C, p. 7)

The same president, who was newer to his college, added,

> I am really good at reminding folks to work within the structure of the college when
> necessary … people were kind of used to always going to the president for everything.
> And so, I'm having to remind them, "[I] would be happy to support this via the
> mechanism of going through your dean. Look forward to seeing this idea and
> recommendation go through this governance process." And then I loop people in. So, I'm
> having to almost like reeducate the campus community about how you're a good campus
> partner and you bring in the right people and not just run to the president because you
> used to have a really good relationship with the previous president, and they gave you
> whatever you wanted. In the end, the answer might be yes, I just need for it to be
> collectively owned, not because you used to golf with the president or something like
> that. (133C, pp. 8-9)

The same president provided an example of this, in which they incorporated constituent feedback

at multiple levels to preemptively gain support for a big campus change, sharing:

> My approach was I wanted the college to own the transition. I wanted it to be discussed
> in Academic Senate, in Classified Senate, in our highest college governance council. I
> wanted to give them information about the need for it, the imperative for it, and then
> provide input and ask the question, "Is this the right way to go?" So, at the end of the fall
> semester from all of those constituency groups, including our Budget Committee, it's like
> yes, we need to do this. Yes, we need to allocate dollars to do this. (133C, pp. 7-8)

Another participant also prioritized the shared governance process on their campus:

> You cannot implement anything without having buy-in from all of those constituency
> groups who actively work to serve your students. So, for many of us, no matter what the
> initiative was, we had to run that through our shared governance process to kind of make
> sure we had buy-in from our faculty members, we had buy-in from our counselors.
> (136C, p. 9)

Most institutional resource requests must go through a multilayered shared governance review,

which includes multiple veto points before making it to the CEO's desk. Oftentimes, a request

must pass through several different committees, many of which are representative of various campus constituents (i.e., faculty, staff, students). Many participants shared a similar sentiment as this participant who commented, "I really, really depend on our strategic planning processes here. They work well. The faculty and administration on the different councils work effectively" (114C, pp. 9-10). Further, several participants highlighted the importance of transparent communication for resource requests; as one participant noted, "Communicating very clearly that these are the funds available, this is how you can apply for a fund, and these are the criteria to which we will be allocating the funds. That has to be very clear and transparent" (110C, p. 13).

Operating under a compliance model, participants find it best to find alignment among various initiatives whenever possible. As such, four CCC presidents shared that their recent EMP reiteration aligns with the CCCCO Vision for Success Goals, as one CCC president elaborated on:

> We have an educational master plan; at the highest level it's aligned with the Vision for Success. We have the goals and objectives or educational master plan and then underneath that a strategic implementation plan with tasks and activities. Everything's connected to that. It's mapped out for 5 years. So, our funding matches our priorities, even at the program review level. If you're asking for money, it needs to be attached to those levels of priorities and that timeline and calendar of our 5-year plan. With that there's also health and safety that's parallel to that. So, if it's under one of those two buckets those are going to get prioritized first. (140C, pp. 13-14)

As CCCs suffer from initiative fatigue and are pulled into numerous mission directives (i.e., career and technical education, transfer, basic skills, dual enrollment, and workforce and economic development etc.), finding alignment is imperative. A CCC president believed that as CEO their "role is to help institutionalize these pieces so that they don't feel like add-ons" (103C, p. 12).

Several participants spoke of the importance of staying mission focused when it comes to prioritizing resources and to not get distracted by "momentary shiny objects" (101C, p. 7).

Several participants stated that initiatives that did not align with existing strategic goals and

vision would not be made a priority. A participant elaborated on this:

> My commitment is to the students, so I try to look at everything we do from the lens of
> how can we position the students in the best possible way to achieve their academic
> endeavors. So, initiatives that are not developed around the student, are not necessarily
> something that I support, or I recommend support for. And what I mean by that is, I want
> to ensure that all the students complete at the highest rate as possible in the lowest
> possible time and we close equity gaps. So, if our initiatives are not covered in those
> three points, usually they will not be something that I push forward. (100C, p. 10)

A CCC president shared similar sentiments when discussing institutional culture and the

importance of staying mission driven, commenting,

> [We must] transform cultures in our institutions where we don't allow ourselves to get
> distracted from the ultimate goal. And it is so easy to get distracted, right? There's some
> political scandal that makes it. There's some public fight between unions. There's [a
> revolving door of chancellors]. There are so many things that can impact us and distract
> us, and I believe as a college president my job is to stay relentlessly focused on the
> college, on the students, and keep looking forward on the path ahead. (133C, p. 6)

> A UC CEO with prior work experience in private higher education institutions identified

the importance of an institution's core mission and how it can better equip schools to address

multiple and competing initiatives from various stakeholders, or how the lack thereof, can cause

a school to flounder. They elaborated,

> Some institutions are much more mission driven and have a set of priorities that they can
> use as lenses to any of these initiatives that come down the pike and then they can say
> these align very well, these don't align well, and that allows them to have a strong and
> confident strategic plan on which ones to implement. There are other institutions that do
> not have that strong sense of institutional priorities. I think it's awfully difficult to have a
> strong sense of institutional priorities when you have chancellors changing, and deans
> changing, and provosts changing, and interim this, and interim that … the folks that are
> downstream have a really difficult time with exactly the way you presented the situation
> because they have no agency in the process; they don't have any decision-making
> priorities, and so they just have to go with what they're kind of told to do. (124A, pp. 11-
> 12)

> Several participants were also mindful to discuss the importance of closing the loop in

terms of resource requests. They suggested that final decisions should be communicated

transparently to the entire campus community. And that rationale for why certain requests were prioritized over others should be shared. A CCC president shared how they close the loop transparently: "At the end, my memo to the chancellor was published to the college, so they knew exactly what I accepted, what I didn't accept, why I accepted it, and why I was recommending to the chancellor" (116C, p. 8).

Leadership Practices

The Role of Communication (Model the Way and Inspire a Shared Vision). Once higher education executive leaders navigate the competing external forces and demands, they are called to drive organizational culture, setting the tone and vision of their respective campus, best done by modeling the way. One participant perceptively observed that the CEO must model the way otherwise nobody will care. Collectively, leadership practices that participants embody were those identified by Kouzes and Posner (2017, 2019): (a) model the way, (b) inspire a shared vision, (c) challenge the process, (d) enable others to act, and (e) encourage the heart. Evidence of this found in the data is expanded on as follows:

The importance of timely and transparent communication was mentioned by most participants. Communication is key in both modeling the desired behaviors they seek constituents to embody, and also imperative in inspiring a shared vision for constituents to follow. A participant shared, "Communications is a big piece, and my approach is to be transparent and to communicate as often as possible" (126B, p. 3). While participants made it clear that top-down leadership approaches did not work in the California public higher education ecosystem, many identified the importance of publicizing and reminding internal and external constituents about their core mission and value added to students. A participant commented, "I set the vision and the expectation and then invite others to participate" (109C, p. 6).

Three participants (CCC *n* = 3) identified institutional culture as one of their top three leadership challenges. A CSU president revealed that it is "really important that the president sets the tone for what the expectation is at the institution" (132B, p. 7). Steering the campus culture starts with the leader's tone and initiatives to which they attend. Another CSU president referred to themselves as "storyteller in chief," providing examples of success stories they share at campus-wide events (135B, p. 13). Another CSU president would concur as they shared that communication is "really important because people listen to the president. So, what the president says, how he/she/they say it, and how often the president refers to it can make a big difference toward people paying attention and moving the dial" (126B, p. 7). Most people are resistant to change, especially when a longstanding member of a rigid bureaucratic ecosystem. Therefore, leadership modeling desired behavior and organizational culture is imperative in moving the needle on new initiatives. As a participant noted, "When I talked about communication it's about being intentional about what the expectations are. And every opportunity we have in our monthly town meetings I'm talking about, you know, what it looks like to be a caring campus" (131C, p. 7).

California public higher education executive leaders are not ignorant of the fact that they do not lead their institution forward alone, they are cognizant of their influence across campus, as a participant shared, "I do think just keeping the issue on the radar by talking about it all the time is a place where I can play an important role and move things forward" (126B, p. 7). Another participant shared similar perceptions:

> There's pushback but I always find that when you give space for people to air their concerns … and their thoughts, … then they're out there and we have the opportunity to respond to them, to mitigate them to address them. Or at the very minimum, for people to say you know, in the end I may not still fully agree with that, but we did talk about this openly and publicly and transparently. (133C, p. 8)

A CCC president stated that when new initiatives or mandates are passed down from macro forces, they often start by chairing a new workgroup committee around this issue, which allows them to set the tone of the work, and once established, they step back and remove themselves from leading the workgroup.

A CSU president highlighted the importance of external communication in building reputation for their school, sharing that it is "very intense outreach for me and relationship building … constant relationship building. And then using media relations to get our name, and stories, and our faculty covered by local media. And so that's a strategy there for raising awareness" (126B, p. 4). A CCC president embodied similar relationship-building strategies, evidenced by their intentional personal visits to all 18 local high school board meetings. According to their CCC counterparts, this was above and beyond the call of duty.

Challenge the Status Quo. Leading a public college or university presents an interesting dichotomy—CEOs hold the power to direct organizational culture and decide which initiatives and programs will take hold, bridging those they agree with and buffering those they disagree with. A CSU president elaborated on their role:

> Point out to people where we, where there's a gap between what we want to be, and where we are, you know. And so that gap between aspiration and reality is a way to motivate people to do things differently, to try to get closer to our own ideal of what we want to be. (135B p. 14)

Higher education executive leaders may need to challenge the status quo on campus with faculty, staff, or students, or off campus with local community partners, system office executives, or California policy actors. One example of a research participant challenging the status quo came from a new CCC president who was new to California and their CCC campus. After a year, they began to question the existing committee structure and membership rules. Specifically, they did not see any value in the president serving as cochair on several different committees when the

final result would end up going to them via executive cabinet anyway. Campus constituents were shocked and rattled at the suggestion of the president no longer being cochair for several sublevel committees and changing a long-standing committee structure, but eventually became amenable to it. This change not only freed up valuable time for the president, but also increased other constituent feedback and buy-in to the processes without their presence on the lower-level committees.

Challenging the status quo is not bound to on-campus activities but also includes external public relations. For example, a CCC president who was new to their post spoke of a local Fortune 500 company whose headquarters were a few miles down the road. Shortly after arriving to the campus the president inquired with their executive cabinet as to what partnerships existed with this company, to which they responded, "none, we approached them in the past, but they were not responsive." Instead of taking this information at face value, the president reached out to the company requesting a meeting. The president approached the meeting with a clear lens and asked how the college could support the company and in turn what opportunities the company could offer their students. The meeting ended positively and was the start of a collaborative relationship. Other examples related to executive leaders' ability to bridge and buffer include various reactions to the June 5, 2020, CCCCO call to action and varying COVID-19 vaccination rules across all 73 CCC districts (CCCCO, 2020b).

The Use of Intentional Collaboration (Enable Others to Act). A few participants who had prior work experience at private higher education institutions commented on differences in institutional culture and practices. A UC CEO shared, "You know, at a private institution, there are a lot more degrees of freedom for university leadership … for example, what you are going to charge, how you're going to organize the finances, what are your individual priorities" (146A,

p. 5). The same CEO shared that in the public sector, "It's very difficult to get from here to there in a place where there's so many veto points and areas of complication" (146A, p. 7). A CCC president would agree with this statement, identifying constituent cohesion as a top leadership challenge:

> Most common challenge is to have all the employee groups, from the board of trustees to the chancellor, to all the unions and employee groups, understanding the mission and following the mission of the campus. To get everybody aligned on the same area. That's probably the most difficult challenge, because every group, or every individual works for some part of his self-interests. And sometimes if that self-interest is not convergent with the institutional goal, then we are at a dichotomous or we are just pulled in different directions. And that does not work together … it's almost like playing in an orchestra. I'm not a musician but the conductor has to make sure that all the hundred hands play the same queue in the same way. (110C, p. 5)

Leaders are both empowered and constrained by organizational and institutional rules and norms. Operating in a complex ecosystem with so many moving parts and levels of authority, several participants said that "dictator" leadership styles do not work. Instead, intentional collaboration is better suited to navigate the complex ecosystem of California public higher education. Intentional collaboration requires (a) thoughtful team selection, (b) freedom to address project goals, and (c) regular monitoring to sustain accountability.

As outlined by groupthink scholars (Janis, 1972; Pillai et al., 2017), intentional team member selection is important to increase diversity of worldview lens and therefore opinions. Additionally, assigning a team member to the role of "devil's advocate" can ensure all possible risks and benefits of any given proposal are given due diligence (Janis, 1972). A participant shared an example of this:

> I think I'm intelligent enough, but I also like to surround myself with even more intelligent people around me and we disagree on things but having a robust discussion and really getting people behind it. Because just like I process a little differently, my team members, I think they appreciate understanding an issue, and not just having it laid at your feet and say go implement it. I think my team can more sincerely and passionately

get behind initiatives that they fully comprehend and can rationalize to their team members as well. (115C, p. 10)

Later in the interview, they added, "My team will let me know when I've got a bad idea. My team will let me know when I've got a good idea. But mine are not the only ideas" (115C, p. 12). Research confirms this president's strategy; no leader possesses all required competencies or knowledge and therefore intentional collaboration is essential to leading change (Battilana et al., 2010; Rogers, 2003)

In addition to keeping groupthink at bay by engaging in diverse work groups, participants also identified the need balance the art of "empowering" constituents while also holding them accountable. A UC CEO elaborated on this:

> As chancellor you never do anything by yourself. So, I really try to create clear goals and assign clear accountability for them and develop a real sense of teamwork on the part of the Chancellor's Cabinet and also the Council of Deans. (138A, p. 2)

A different UC CEO shared similar beliefs, stating, "It is empowering others to really be accountable to their own work. Developing a culture of collaboration where we support each other. Making data-driven decision making is very important" (134A, p. 3). The best leaders will empower their constituents to be accountable for the collective work by setting clear goals and monitoring progress.

Building interdisciplinary teams to address specific initiatives is important because as a CSU president noted, one cannot assume "something is purely academic in the classroom and ignore what happens outside of the classroom" (141B, p. 14). As such, this CEO believes the role of the president is "to make it a priority of the campus and constantly remind people that this matters and ensure different parts are all talking together" (141B, p. 14). This CEO added, "Be consistent in the message and then insist that the dollars and the resources are put behind it" (141B, p. 15).

For projects that require challenging the status quo, and confronting resistance to change

head-on, three CCC presidents specifically seek out "champions" on their campus—constituents

that will be allies to impart positive change. One elaborated on this:

> Find your allies. Find the younger faculty. … You find the people that have a willingness
> to change and a willingness to innovate and then strategize. … It's really finding the
> champions from that, or peers for that group, and then working with them. And you
> know, the ideas can't be ideas that come from me. And we try not to make it top down.
> We really try and make it come from the faculty voice and perspective. And it's really just
> planting seeds and trying to find where they will grow." (115C, pp. 5-6)

As one participant perceptively observed, a primary function of California public higher

education executive leaders is keeping employee groups aligned with institutional goals and

mitigating self-interest and resistance to change. Several participants recognized that timely and

transparent communication paired with acts of kindness and recognition go a long way in

building constituent trust, loyalty, and buy-in.

No Good Deed Is Too Small (Encourage the Heart). Throughout the course of

interviews, several participants provided unsolicited examples of how they encourage

constituents' hearts, which in turn increases trust. One participant who self-identified as

"cheerleader and communicator-in-chief," also elaborated on the importance of encouraging the

heart, and how they accomplish this:

> Oftentimes people do not get the bigger picture of what we are doing and how we are
> accomplishing our goals. So, to keep them motivated, to keep them aligned, empower
> every person, whatever they're doing that is contributing to our goals, to make people
> feel valued and important. That's one personal strategy that I do take a lot of care to
> respond to the needs, to meet with people, not just walking around aimlessly but sincerely
> appreciating people and what they do. And appreciation has to be sincere. (110C, p. 7)

A different participant shared concrete examples of how they encourage the heart:

> I try to model what others should do. I answer all my emails every single day. I return
> every call every day … my email box is cleaned out of the end of every day. I'm very
> responsive. I write, we have 1,000 employees, I write handwritten birthday cards to every
> single one of them. Anytime I hear of something someone has done sort of extra special I

write them a personal email and thank them and usually copy their supervisor, so they know that I am doing that because I want the person to get credit for their good work. I started a, for the classified, I started a coffee break with the president. (120C, pp. 9-10)

The same participant correlated employee and student morale:

I told them I'm changing my chief executive officer title to chief experience officer. So, I'm now, I'm still the CEO, but … my charge is to make sure that our employees have a five-star experience working in this institution, so that that gets transmitted to the students who get a five-star experience in coming to this campus. (120C, p. 10)

Another participant also spoke of the importance of attending to staff morale:

I really think staff morale and kind of the way we build our teams and support our teams is crucial, because it has such a direct effect on what's really important, which is students. So, we try to be very intentional just about the things we say, and the things we do in support of one another here. We do a lot of surveys as well. And I want to know what works, what doesn't work, and all that sort of thing. Because at the end of the day, it's very important that we build an environment where people enjoy working with one another, because it has a direct correlation with student satisfaction. (128C, p. 4)

Another participant shared the importance of building trust by being transparent and authentic in sharing their personal story as a neo-traditional student, and second, through listening sessions:

I think that I'm very keen on listening to people at having these listening sessions and trying to get to know who people are. Because they want to know that the president cares about them. And when they figure that one out, then the work that you're trying to do, then they tend to buy into it. (111C, p. 9)

In speaking of recent traumatic events (e.g., global pandemic, Black Lives Matter movement, and political unrest), a CCC president shared that prioritizing wellness by way of trauma-informed care for all campus constituents is imperative because "you can't serve students very well if your organization is unhealthy" (143C, p. 4).

Interpretation of Findings

When reviewing the systemic barriers, institutional practices, and societal determinants that impede California student baccalaureate attainment, one overarching theme emerged, the challenge *leading change* amidst a complex ecosystem with so many moving parts and levels of

authority. This was the result of the multitude of macro, meso, and micro levels of authority

(e.g., labor unions, board of trustees, system directives, policy actor turnover, legislative

mandates, etc.). A CCC president captured the essence of cumulative challenges, noting,

> We're working in an underfunded and over constrained environment and we're serving students who deserve so much more. So, we don't have enough money, we got too many rules, and then our students need all the support that we can provide them so that they can accomplish their goals. (114C, p. 3)

Another participant cited change as their top leadership challenge, elaborating,

> To do what's best for students we have to constantly reinvent ourselves. And we can't be stale, we can't be complacent, because if we do then we're leaving behind a generation that needs us to be nimble and flexible. So, innovation is a huge challenge because people are resistant to change; we are creatures of habit. And so that's a huge challenge. (140C, p. 10)

The rich and thick data collected for this grounded theory study revealed that California public

higher education executive leaders navigate macro, meso, and micro relationships differently.

Further, higher education executive leaders serve as a filter and buffer between micro

constituents and macro structures (e.g., policymakers, governor, system office). In turn, policy

actors serve as a filter for the broader California citizenry and their higher education interests

(e.g., cost, financial aid, California student access vs. nonresident access, housing, etc.) often the

result of television, internet, and social media outlet news.

At the macro level, executive leaders triage to maintain compliance. For mandates and

initiatives tied to funding, compliance is of utmost importance. Several participants spoke of

initiative fatigue and felt they are operating under crisis management, putting out one fire out

after another. This crisis management model can be a distraction from core mission and

institutional strategic goals. Mandates, especially those tied to funding, do not provide much

flexibility. However, when talking about various initiatives that are not hard mandates or impact

state budget allocations, participants revealed that their level of compliance falls on a continuum

which is a result of (a) their personal opinion and (b) how closely macro initiatives align with the institution's core mission and strategic goals. A CCC president elaborated on this concept:

> So, initiatives that are not developed around the student, are not necessarily something that I support, or I recommend support for. And what I mean by that is, I want to ensure that all the students complete at the highest rate as possible, in the lowest possible time, and we close equity gaps. So, if our initiatives are not covered in those three points, usually they will not be something that I push forward. So, in this particular case, I see my goal and my contribution, and my role to the community, to ensure that those students have the best opportunity to graduate and enter the workforce or community workforce ready to one earn minimum basic wages and livable wages and contribute to the economic development. (100C, pp. 10-11)

A UC CEO that was particularly indifferent to collaboration and shared governance shared that decisions are made "based on what I think should be done. It's as simple as that. I get input all the time, but that doesn't mean anything" (107A, p. 3).

California public higher education executive leaders revealed that top-down leadership approaches do not work. There are too many veto points amidst California's shared governance and labor union environment. Comparing work experience in Texas versus California, one CSU president noted:

> It was much easier in Texas to be able to change things, to be able to develop, to be able to match situations. I didn't have the standard, "Well that's not part of my work," or "you're changing my work conditions," or things like that. (125B, p. 3)

The same CSU president identified another complexity embedded within the California public higher education ecosystem: the sheer number of labor unions on any given campus. In addition to what they identified as the strongest union, the faculty association, they identified five other unions representing various staff. They bemoaned the time required to meet and confer with the labor unions and resulting delays that ensue to impart change. Another participant perceptively observed, "I feel like I have about 40% of the authority and 100% of the responsibility to try to get things done" (105C, p. 9). This sentiment permeated most participant interviews and is why

most participants spoke of transformational leadership practices when navigating micro constituent relationships.

Limitations of the Study

This study only included college and university executive leaders from California public schools. While nonprofit private and proprietary schools abound across California, the researcher did not have the capacity to include leaders from these institutions in the study. Additionally, higher education executive leaders outside of California were not provided an opportunity to participate in the study. Therefore, inability to generalize results across all higher education institutions was a major limitation of this study.

The researcher attempted to develop a contact list for all 115 CCC presidents; however, contact information for presidents was not readily make public across all CCC websites. The researcher did not attempt to make phone calls to track down any of the missing contact information. Therefore, four CCC presidents ($n = 4$) were never invited to participate in the study. Additionally, the researcher did not invite any CCC presidents serving in an interim or acting role ($n = 9$) or who had been in their position as CCC president for less than a year as of June 2021 ($n = 5$). The president position at three CCCs ($n = 3$) were vacant as of June 2021, and therefore, these colleges were not represented in this study. Lastly, the researcher did not formally include the CCC president from the campus where they are currently employed in the final study results. This means the number of CCCs who were invited to participate in the study was reduced from 115 to 93. Of the 93 who were invited, 31 CCC presidents agreed to participate. However, three CCC presidents asked to reschedule their interviews a few days prior. Because of the high response rate to participate, the researcher anticipated saturation and did not

reschedule these three presidents for a later date, and therefore ended with 28 CCC participants. As participants self-selected to engage in this study, there was the potential for selection bias.

All 23 CSU presidents were invited to participate. However, as participants self-selected to engage in this study, there was the potential for selection bias.

Chancellors from the nine undergraduate UC campuses (UC San Francisco only offers graduate programs) were invited to participate in the study. However, the researcher anticipated that UC chancellors may not be afforded time to participate in the study, and therefore, the researcher also invited two additional high-level executives from each UC campus, such as vice chancellors or provosts to ensure a response representative of the UC executive leader collective. Two additional high-level executives (e.g., vice chancellors, provosts) from each UC campus were invited, for a total of 27 UC CEO invitations, of which 11 chose to participate. There was representation from all nine undergraduate UC campuses, and two UC campuses included representation from two different CEOs. However, as participants self-selected to engage in this study, there was the potential for selection bias.

Data that were collected from participants during their semistructured interviews could be prone to participant self-bias (Babbie, 2017). Self-bias is a potential limitation in that executive leaders may have responded to interview questions in a manner that would maintain their school's reputation or standing. Additionally, the accuracy of all research participant statements could not be verified, and therefore was another potential limitation.

As an alumni and employee of CCCs for more than 11 years, the researcher is keenly aware of the multitude of complexities students face along their educational journey, especially transfer-intending students. Furthermore, as a CCC counselor for more than 8 years, the researcher holds additional insight into various institutional and systemic practices that impede

student progress toward baccalaureate degree completion. With most higher education work experiences served across three different CCCs, the researcher may not have provided equal attention to the problems California FTF face compared to their CCC counterparts. This bias toward the needs of neo-traditional students that CCCs serve may inadvertently have skewed research results. To mitigate researcher bias, the researcher did not formally include the CCC president from the campus where they were employed.

Additional study limitations included potential research bias in the development of research and interview questions. Because of the researcher's intimate work experiences with CCC students, two questions directly asked participants to identify "institutional and systemic barriers," one question asked CEOs to identify their "top three challenges," and two questions asked participants to provide suggestions for "improving" (the California transfer function and efficiency of baccalaureate attainment). So, while there were other open-ended questions that allowed participants to provide positive commentary, some did not. Before interviews commenced, in an effort to reduce possible researcher bias in development of interview questions, the researcher conducted a pilot interview with their current CCC president in an effort to identify any potential gaps or inefficient questions.

Lastly, the grounded theory process has been found to be exhausting for novice researchers to navigate, especially when serving as a sole coder for themes and subthemes (Hussein et al., 2014). This increases the potential for researcher bias. Several strategies were employed to mitigate potential researcher bias including use of triangulation, saturation, member checks, reflexivity, and rich thick descriptions (Birt et al., 2016; Corbin & Strauss, 2015; Creswell & Creswell, 2018; Creswell & Miller, 2000; Denzin, 1989; Fusch & Ness, 2015; Strauss & Corbin 1990; Tracy, 2020).

Chapter 4 Summary

California public higher education executive leaders hold a unique position in which they can elaborate on the intricacies, complexities, and challenges associated with California student access to baccalaureate-level education and degree completion, as they facilitate alignment between macro (federal, state, system offices), meso (regional industry, local city governance), and micro (institution and/or district) forces. This qualitative grounded theory study addressed the following four guiding research questions, by interviewing 47 (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) California public higher education executive leaders.

Baccalaureate Access and Completion [RQ1]

In discussing California baccalaureate-level education access and attainment, three broad themes emerged: (a) systemic barriers, (b) institutional practices, and (c) societal determinants. Each of these major themes included several subthemes that were grounded in data collected from participants.

Systemic Barriers That Inhibit California Baccalaureate Attainment

1. California higher education funding structures: campuses/CEOs lack full control of income and expenditures ($n = 45$).

2. Capacity constraints at most UC and CSU campuses to admit all eligible undergraduate applicants ($n = 31$).

3. State and federal student financial aid formulas and eligibility requirements ($n = 27$).

4. Equity gaps persist in high school ($n = 8$) and college ($n = 18$).

5. Declining public opinion on the value of a college degree ($n = 11$).

6. California higher education policymaking practices ($n = 17$).

7. Deficient intra and intersegmental collaboration (e.g., application processes, admissions requirements, course articulation, graduation requirements, etc.) to establish seamless academic and career pathways ($n = 23$).

8. Faculty control of curriculum, especially as it relates to streamlining existing pathways ($n = 16$).

Institutional Practices That Affect California Student Baccalaureate Access and Completion

1. The rigid historical nature of higher education which operates under a compliance model ($n = 9$) creates

2. bureaucratic roadblocks ($n = 12$) and

3. inefficiencies ($n = 26$),

that reduce institutions' ability to meet the diverse needs of neo-traditional students.

Societal Determinants That Affect California Student Baccalaureate Access and Completion

1. Neo-traditional students' lack social capital to navigate the complexities of higher education systems ($n = 9$).

2. Neo-traditional students' have knowledge barriers regarding the value of higher education, admissions requirements, and the true net cost ($n = 8$).

3. Neo-traditional students are more likely to internalize institutional barriers and give up ($n = 9$).

4. Neo-traditional students have increased basic needs that impact their retention and success (e.g., food, housing, transportation, childcare, healthcare, technology, etc.) ($n = 18$).

Several recent systemwide initiatives and state legislation (refer to Table 7) were discussed that have already helped move the needle toward reducing student equity gaps and

increasing baccalaureate completion metrics. By way of the magic wand question, additional suggestions were provided to further increase the efficiency of California student baccalaureate attainment to meet workforce demand. The five most prevalent suggestions included: (a) financial aid reform, (b) reevaluating historical norms and traditional practices that impede student access and completion, (c) addressing declining state allocations and the role of tuition, (d) simplifying statewide articulation and transfer pathways and increasing intersegmental collaboration to increase the number of MOU/guarantee programs for transfer-intending students, and (e) increasing baccalaureate offerings at CCCs. A variety of innovative strategies to stretch thin budgets further and to increase outside funding were also documented.

California Transfer Climate [RQ2]

Most participants highlighted the importance of the CCC transfer pathway to UC and CSU, which increases neo-traditional student access to baccalaureate-level education. And UC and CSU executive leaders talked highly of their transfer students when referencing their higher 2- and 4-year graduation rates when compared to their FTF counterparts. However, as a couple UC CEOs shared, some campuses and faculty are more reluctant to embrace transfer students than others, and efforts to fully recruit and embrace them has only occurred in more recent years. Also, it appears that UC sentiments of elitism still pervade as indicated by the language and statements several made when referencing CCC students and instructional quality. Two UC CEOs (123A and 118A) shared that until recently, transfer outreach and initiatives were not a priority of UC. This changed in 2018 when Governor Brown utilized financial levers to enforce a 2:1 freshman to transfer ratio (Jackson, 2017).

Table 7 – Timeline of recent California student success and equity higher education initiatives and legislation

Initiatives & Legislation	Date
California Senate Bill 1456 Student Success Act. Purpose to increase CCC access and success by providing effective matriculation services, including orientation, assessment and placement, counseling, academic interventions, and other education planning services.	September 27, 2012
California State University Graduation Initiative 2025 (GI 2025)—a multiyear plan of action to increase degree attainment and reduce equity gaps (CSU, 2016).	January 2016
Vision for Success: Strengthening California's Community Colleges to Meet California's Needs adopted by the Board of Governors (BOG)—a multiyear plan to increase certificate and degree attainment, increase transfer rates, reduce unit accumulation, and reduce equity gaps (Foundation for California Community Colleges, 2019).	July 2017
California State University Executive Order 1110 (removal of remedial coursework; CSU, 2018).	August 2, 2017
California Assembly Bill 705. An act to amend Section 78213 of the Education Code, relating to community colleges remedial coursework offerings (Seymour-Campbell Student Success Act of 2012, 2021).	October 13, 2017
California Assembly Bill 1809, Chapter 33 established the student-centered funding formula (SCFF) as a new way to allocate funding to community college districts	July 2018
California Senate Bill 75 established the California Cradle-to-Career Data System Workgroup to provide assessment and recommendations about establishing a statewide data infrastructure that integrates data across K-12 and higher education entities (SB 75, 2019).	July 1, 2019
California Assembly Bill 1313 (can no longer withhold transcripts from students for nonpayment; AB 1313, 2019).	October 4, 2019
University of California *Eliminating Gaps in Timely Graduation by 2030*—a multiyear plan of action to increase degree attainment and reduce equity gaps (UC San Francisco, 2019).	September 9, 2019
University of California removal of SAT/ACT as admission criteria (UC, 2022e).	May 21, 2020
California State University removal of SAT/ACT in admission criteria (Beall, 2022).	March 22, 2022
California Assembly Bill 1705 passed to extend AB 705 provisions relating to community college remedial coursework offerings (Seymour-Campbell Student Success Act of 2012, 2021).	September 30, 2022
California Assembly Bill 927 makes the former California community college baccalaureate pilot program permanent. The bill also allows for 30 new baccalaureate degree programs per academic year not exceed 25% of the total number of associate degree programs offered within a singular community college district (AB 927, 2021).	October 6, 2022
California Assembly Bill 928, requiring establishment of a singular lower-division general education pathway that meets academic requirements to transfer by May 31, 2023. The bill also requires that California community colleges automatically place students who declare a goal of transfer on the ADT pathway if one exists for their desired major (Student Transfer Achievement Reform Act of 2021: Associate Degree for Transfer Intersegmental Implementation Committee, 2021).	October 6, 2022
California Assembly Bill 1111, requiring California Community Colleges to adopt a common course numbering system for all general education and transfer pathways required courses by July 1, 2024 (AB 1111, 2021).	October 6, 2022

Governor Brown's push was that each individual campus must meet the mandate. It could not be obtained collectively as a system, allowing some campuses to admit fewer transfer students while having other campuses overcompensate by admitting more.

California Transfer Pathways [RQ2]

The top concerns surrounding California transfer pathways included (a) complexity of application and admission requirements, (b) lack of uniform articulation within and across systems, and (c) impact of capacity constraints. Seven participants spoke of the lack of uniformity and complexity of application and admissions requirements (UC $n = 3$, CSU $n = 1$, CCC $n = 3$; 106A, 118A, 123A, 137B, 144C, 117C, 140C) with a UC CEO sharing, "It's just so complicated and convoluted that you almost have to have a degree to navigate the transfer process" (118A, p. 15). Only four participants provided positive commentary on existing transfer pathways, whereas 15 (UC $n = 3$, CSU $n = 2$, CCC $n = 10$) highlighted areas of concern. CSU and CCC presidents were equally likely to identify intersegmental collaboration as an area of opportunity for improvement (CSU 50%, CCC 50%) and more so than UC executive leaders (UC 36.4%). For executive leaders across all three segments (i.e., UC, CSU, CCC) the primary focus of increasing intersegmental collaboration is to streamline articulation (UC $n = 5$, CSU $n = 2$, CCC $n = 12$); however, CCC presidents ($n = 4$) also identified a need to develop common course numbering. While ADTs have helped to streamline required major prep for CSU transfer-intending students, it is not available for all programs of study, like engineering or nursing, or offered by each CCC. Also, nine CCC presidents shared concerns regarding unequal enforcement of ADT legislation across CSU.

Lack of state funding for enrollment growth in turn creates a bottleneck for transfer students as many UC and CSU campuses suffer capacity constraints to admit all transfer-eligible

students. While guaranteed transfer pathways like CSU ADT and UC TAG have helped streamline transfer requirements, they are not available for all majors or all campuses. Capacity constraints further increase admission selectivity, which in turn forces CCC transfer-intending students to complete major prep for multiple UC and CSU campuses to increase their chance of admission to at least one campus. This process in turn can increase the number of unnecessary units and time to successful transfer and baccalaureate completion. In essence, capacity constraints feed back into the negative loop that further perpetuates more capacity constraints.

Similarities and Differences Across UC, CSU and CCC Leader Perceptions [RQ3]

While state funding was cited as the number one challenge of executive leaders across all three segments (UC = 100%, CSU = 100%, CCC = 93%), UC and CSU executive leaders discussed the following funding topics while CCC presidents did not:

- Historical declines in California higher education state funding

- Made correlations between budget and institutional quality

- The importance of funding infrastructure deferred maintenance and capital outlay

- The impact of flat tuition on their operating budgets

UC (81.8%) and CSU (75%) executive leaders were more likely to discuss student access to financial aid compared to their CCC counterparts (42.9%). Lastly, UC (54.5%) and CSU (25%) executive leaders were more likely than CCC presidents (3.6%) to be concerned with the ideology shift that higher education is no longer perceived as a public investment. However, UC CEOs did not speak of the importance in communicating the value of higher education to the larger public, while CSU (62.5%) and CCC presidents (21.4%) did.

Across all three segments (i.e., UC, CSU, CCC), enrollment management was one of the top challenges cited by California public higher education executive leaders, however, UC

(36.4%) and CCC presidents (32.1%) were more likely to discuss enrollment management concerns then their CSU counterparts (12.55%). CSU presidents were more likely to mention capacity constraints within UC and CSU (UC = 54.5%, CSU = 87.5%, CCC = 60.7%); however, they were less supportive of CCCs offering baccalaureate programs (UC = 54.5%, CSU = 62.5%, CCC = 82%). When asked for the top three institutional or systemic barriers that inhibit transfer-eligible students from transferring to a 4-year school, UC CEOs (27.3%) were more likely to blame the lack of uniformity and complexity of admissions requirements, while CCC (50%) and CSU (50%) executive leaders were equally likely to identify intersegmental relationship building as one of their top three challenges or areas of opportunity. UC CEOs (36.4%) were more likely to cite concerns of inequitable access to college prep courses in high school than their CSU (12.5%) and CCC (10.7%) counterparts; however, executive leaders across all three segments (UC = 18.1%, CSU = 12.5%, CCC = 10.7%) mentioned the need to increase collaboration with local high schools. While executive leaders across all three segments (UC = 9.1%, CSU = 25%, CCC = 14.3%) suggested intersegmental technology and data sharing, CCC presidents were also the only executive leaders to suggest development of common course numbering (14.3%).

While five participants (UC $n = 1$, CSU $n = 1$, CCC $n = 3$) made general statements on the importance of gaining constituent buy-in, CCC presidents (17.9%) were the only ones to identify faculty resistance to change as one of their top three challenges as CEO of their respective campus, as well as suggesting mandating change through legislation seems to be the only solution to address faculty resistance to change (21.4%). CCC presidents (39.3%) were more likely than their UC (27.3%) and CSU (25%) counterparts to provide commentary on the influence of state legislature and other policy actors.

Leading California Public Higher Education Amidst Multiple Complexities [RQ4]

California public higher education executive leaders face a multitude of complexities built into the structure of California higher education. These include multiple and sometimes competing missions, programs, or initiatives. As a public higher education CEO, they must facilitate alignment between macro (federal, state, systemwide), meso (regional industry, local city governance), and micro (institution, district) forces. Leadership topics discussed throughout interviews included initiative fatigue, decision-making strategies, and various leadership practices.

Initiative Fatigue Resulting From a Compliance Environment

Throughout the course of interviews, six participants mentioned the feeling of initiative fatigue they experienced as a result of the numerous initiatives and mandates that came down the line from various macro-level stakeholders (e.g., federal, state, system office, accrediting bodies, local government, etc.). As one participant shared, "A lot has come down the pipeline in the last couple [of] years and we are spread a little thin on initiatives, and we kind of have initiative fatigue. So, if there's ways to narrow that focus, it would be good" (140C, p. 14). Several participants shared how initiative fatigue makes staying mission driven more challenging; one shared, "Through all of the initiatives and sort of the initiative fatigue, it's the difficulty of making sense of it all to and presenting a narrative, a common narrative and a vision to the campus and to the community" (121C, p. 6). Also, a couple of participants shared that initiative timelines often do not allow ample time to be evaluated before changes are made or new initiatives implemented.

Decision-Making Strategies

Public higher education executive leaders are called to evaluate macro- and micro-level climates and priorities upon which they must act as a filter and buffer deciding which programs, initiatives, or resource requests are prioritized. Amidst these complexities, participants were asked how they prioritize human and fiscal resources on their campus. Collectively California public higher education executive leaders shared that decisions are a result of (a) strategic planning processes guided by (b) collective shared governance, (c) while attempting to ensure alignment with the institutional mission. Operating under a compliance model, participants find it best to align various initiatives with institutional strategic plans but caution against being distracted by "momentary shiny objects" (101C, p. 7). Several participants stated that initiatives that did not align with existing strategic goals and vision would not be made a priority. It was noted that while college and university strategic plans are for 5+ years, state higher education budget allocations are incongruent, and only planned in annual increments. This is a major disconnect.

Five Leadership Imperatives

Navigating relationships with donors, local industry partners, labor unions, board of trustees/board of regents, system offices, accrediting bodies, federal legislation, California legislator and governor turnover, and local control boards is no easy feat. Participants made it clear that top-down leadership approaches do not work in the California public higher education ecosystem, a result of faculty power in two arenas: (a) academic policies (via Academic Senate) and (b) working conditions (via labor unions). Leadership practices shared throughout the course of interviews collectively embody those identified by Kouzes and Posner (2017, 2019):

(a) model the way, (b) inspire a shared vision, (c) challenge the process, (d) enable other to act, and (e) encourage the heart.

While participants made it clear that top-down leadership approaches did not work in California's public higher education ecosystem, many identified the importance of publicizing and reminding internal and external constituents about their core mission and value added to students. One participant commented, "I set the vision and the expectation and then invite others to participate" (109C, p. 6). Leading a public college or university presents an interesting dichotomy—CEOs hold the power to direct organizational culture and decide which initiatives and programs will take hold, bridging those they agree with and buffering those they disagree with. Higher education executive leaders may need to challenge the status quo on campus with faculty, staff, or students, or off campus with local community partners, system office executives, or California policy actors. For projects that require challenging the status quo, and confronting resistance to change head-on, three participants identified the need to seek out champions on their campus—constituents that will be allies to impart positive change.

Leaders are both empowered and constrained by organizational and institutional rules and norms. Operating in a complex ecosystem with so many moving parts and levels of authority, several participants said that dictator leadership styles do not work. Instead, intentional collaboration is better suited to navigate the complex ecosystem of California public higher education. Intentional collaboration requires (a) thoughtful team selection, (b) freedom to address project goals, and (c) regular monitoring to sustain accountability. In addition to keeping groupthink at bay by engaging in diverse work groups, participants also identified the need balance the art of empowering constituents while also holding them accountable. Building interdisciplinary teams to address specific initiatives is important because as a CSU president

noted, one cannot assume "something is purely academic in the classroom and ignore what happens outside of the classroom" (141B, p. 14). As such, this CEO believes the role of the president is "to make it a priority of the campus and constantly remind people that this matters and ensure different parts are all talking together" (141B, p. 14).

Throughout the course of interviews, several participants provided unsolicited examples of how they encourage constituents' hearts, which in turn increases trust. Examples included creating intentional listening sessions (for individuals and groups), providing handwritten notes to all employees on their birthdays, recognizing small acts publicly, responding to every email and phone call every day, and creating a five-star experience for all employees.

This concludes Chapter 4 and the data analysis provided by the qualitative grounded theory study, which included 47 (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) California public higher education executive leaders.

PART 4

Conclusion

Part 1	Chapter 1	Introduction/Problem Statement
The Nature of the Research Problem	Chapter 2	Literature Review

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Research Methodology & Procedures		

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CHAPTER 5: DISCUSSION AND CONCLUSIONS

Chapter 5 Overview

Even though California is home to the nation's largest higher education systems, they are not keeping up with labor market demands for baccalaureate-degree earners (Bustillos et al., 2017; Campaign for College Opportunity, 2021; Cooper et al., 2017; H. Johnson, 2016; H. Johnson et al., 2015). As such, this qualitative grounded theory study ($N = 47$) sought to dig deeper into California higher education ecosystem intricacies by obtaining the perspective of executive leaders across all three public segments (i.e., University of California (UC), California State University (CSU), California Community Colleges (CCC)). Chapter 4 provided rich and thick data grounded in California public higher education CEOs' lived experiences leading their respective institutions. Semistructured qualitative interviews provided insight into micro, meso, and macro forces that influence California student undergraduate access and attainment. Student retention and success are not the sole responsibility of students but also a result of institution site-level practices, systemwide policies, and statewide legislation. Chapter 5 synthesizes findings identified in Chapter 4, provides conclusions grounded in data, and suggestions for policymakers, higher education leaders, and for future research.

Synthesis of Findings

The first three guiding research questions of this grounded theory study sought to identify how California public higher education leaders perceive the current climate of baccalaureate access, completion, and the role of vertical transfer. Most participants ($n = 31$) commented on the mismatch between the number of eligible degree-seeking students and capacity constraints at UC and CSU, especially in rural and more densely populated regions. Participants highlighted the importance of the CCC transfer pathway to UC and CSU, which increases neo-traditional student

access to baccalaureate-level education. However, as a couple of UC CEOs shared, some campuses and faculty are more reluctant to embrace transfer students than others, and efforts to fully recruit and embrace them has only occurred in more recent years. The top concerns surrounding California transfer pathways include (a) complexity of application and admission requirements, (b) lack of uniform articulation within and across systems, (c) and impact of capacity constraints. Further, seven participants directly noted that California is not adequately meeting workforce demand for baccalaureate degree earners.

In discussing California baccalaureate-level education access and attainment, three broad themes emerged: (a) systemic barriers, (b) institutional practices, and (c) societal determinants. Each of these major themes included several subthemes that were grounded in data collected from participants.

Systemic Barriers That Inhibit California Baccalaureate Attainment

1. California higher education funding structures: Campuses/CEOs lack full control of income and expenditures ($n = 45$).

2. Capacity constraints at most UC and CSU campuses to admit all eligible undergraduate applicants ($n = 31$).

3. State and federal student financial aid formulas and eligibility requirements ($n = 27$).

4. Equity gaps persist in high school ($n = 8$) and college ($n = 18$).

5. There is declining public opinion on the value of a college degree ($n = 11$),

6. California higher education policymaking practices ($n = 17$).

7. Deficient intra and intersegmental collaboration (e.g., application processes, admissions requirements, course articulation, graduation requirements, etc.) to establish seamless academic and career pathways ($n = 23$).

8. Faculty control of curriculum, especially as it relates to streamlining existing pathways ($n = 16$).

Institutional Practices That Affect California Student Baccalaureate Access and Completion

1. The rigid historical nature of higher education which operates under a compliance model ($n = 9$) creates

2. bureaucratic roadblocks ($n = 12$) and

3. inefficiencies ($n = 26$),

which reduce institutions' ability to meet the diverse needs of neo-traditional students

Societal Determinants That Affect California Student Baccalaureate Access and Completion

1. Neo-traditional students lack social capital to navigate the complexities of complex higher education systems ($n = 9$).

2. Neo-traditional students have knowledge barriers regarding the value of higher education, admissions requirements, and the true net cost ($n = 8$).

3. Neo-traditional students are more likely to internalize institutional barriers and give up ($n = 9$).

4. Neo-traditional students have increased basic needs that impact their retention and success (e.g., food, housing, transportation, childcare, healthcare, technology, etc.; $n = 18$).

Leading a California Public Higher Education Institution

Overall, findings indicate a tension and inverse relationship among two continuums: uniformity and autonomy (refer to Figure 17). Recent California legislative reforms (e.g.,

uniform GE AB 928, common course numbering AB 1111, cradle-to-career database SB 75) and governor performance expectations outlined for the 2022-23 budget (e.g., common integrated admission platform, learning management system, and equity measurement tool) are indicative of increasing intra and intersegmental uniformity, which addresses participant concerns that existing pathways are disparate and nearly impossible to navigate. Further, many participants identified the role that faculty academic freedom plays in California (high on the autonomy continuum), which works directly against policymaker and higher education leader's attempts to increase uniformity and intra and intersegmental collaboration. Some participants caution against one-size-fits-all legislative approaches as each campus within UC/CSU/CCC is unique and is called to address unique regional industry and student needs. Also, participants lamented state control of funding, tuition, and enrollment caps, which restrict individual campus business operation autonomy. California public higher education executive leaders are called to balance the autonomy and uniformity continuums as they attempt to move their respective campus mission and strategic goals forward. It is evident that regional needs are unique, and therefore become the moderator in identifying a "sweet spot," the point at which autonomy and uniformity continuums converge.

Figure 17 – Competing logics of public higher education administration

The fourth guiding research question sought to identify how California public higher education leaders prioritize multiple and competing initiatives from various stakeholders. Findings indicate that the overarching challenge California public higher education CEOs face is leading change amidst a complex ecosystem with so many moving parts and levels of authority. This is the result of the multitude of macro, meso, and micro levels of authority (e.g., labor unions, board of trustees, system directives, policy actor turnover, legislative mandates, etc.). Results reveal that California public higher education executive leaders navigate macro and micro relationships differently. At the macro level, executive leaders triage to maintain compliance. Participants revealed that their level of compliance falls on a continuum which is a result of (a) their personal opinion, and (b) how closely macro initiatives align with the institution's core mission and strategic goals. Further, results find that top-down leadership approaches do not work because there are too many veto points amidst California's shared

governance and labor union environment. Therefore, at the micro institutional level, participants identified various transformational leadership practices they engage in when navigating micro constituent relationships.

Public colleges and universities are complex entities operating within unique environmental circumstances and enmeshed ecosystems in which business, government, and the public intertwine. With a multitude of micro, meso, and macro forces, higher education leaders must continually adapt their modus operandi and engage in contingency planning to address and navigate threats and uncertainty. History repeats itself, and higher education leaders and policymakers alike would be wise to review historical shifts as they prepare to create a new postpandemic normal. This is evident in the fact that unpredictable and insufficient government funding was the number one concern for colonial college Presidents (Thelin, 2019) and remains today for public higher education CEOs. Thelin (2019) perceptively observed the following:

> The most disturbing aspect of the historical myopia of American higher education today is the belief by presidents and boards that if only they had more money, then their institutions would be great. Equally plausible is that, with more money, the institutions would be merely larger, more complex, and less coherent. (p. xiii)

If over the course of 385 years U.S. higher education has not been able to solve its funding conundrum, how can we be assured that throwing more money into the pot would help? The shift from college-ready to student-ready ideology has resulted in various initiatives that have increased student success metrics, all amidst declining state investment (refer to Table 7). So perhaps Thelin's (2019) argument is correct. However, some researchers would argue that the financial burden has simply shifted from taxpayers to individual students, a result of rising tuition due to declining state investment (Hamilton & Nielson, 2021; Newfield, 2016).

As Parkinson's law (1955) conjures, the more money people earn, the more they will end up spending; those who earn higher lifetime salaries do not necessarily end up with larger

retirements compared to low-wage earners. This is because as lifestyle expectations increase so too does the need to spend more money to maintain said lifestyle (i.e., anchoring heuristic). A similar correlation can be made for U.S. public higher education. As the number of institutions expanded so too did the need to compete for increased enrollment via the "amenities race" (McClure, 2019; Mughan et al., 2022). Competing for student enrollment becomes a reinforcing feedback loop because as new services and state of the art facilities are added to a campus, more revenue (via enrollments or tuition) is needed to maintain these new features. However, as time passes, so too do students' desires. The rock-climbing wall of 2010 may be a long-term investment with short-term returns. Higher education leaders would be prudent to focus on innovative ideas for expanding access, instructional quality, and equity. This requires an unwavering focus on the core mission and reduction of the market practices.

In their book *Broke: The Racial Consequences of Underfunding Public Universities,* Hamilton and Nielson (2021) documented how neoliberalism ideology (i.e., austerity, privatization, and marketplace thinking) results in a cyclical five-stage racial neoliberalism feedback loop (refer to Figure 18). This cycle starts with the social construct of merit, which in turn feeds into the construct of quality education. As UC and CSU capacity constraints increase selectivity, "merit" and "quality" in turn propagate social stratification, as neo-traditional students predominately attend low-funded open access institutions. Segregation of neo-traditional students results in racialized organizational hierarchies, which in turn leads to unequal distribution of higher education resources and inadequate infrastructure and services to aid student retention and completion. The cycle is a continuous feedback loop as schools that suffer inadequate resources further decline in quality and merit.

Figure 18 – Racial neoliberalism feedback loop
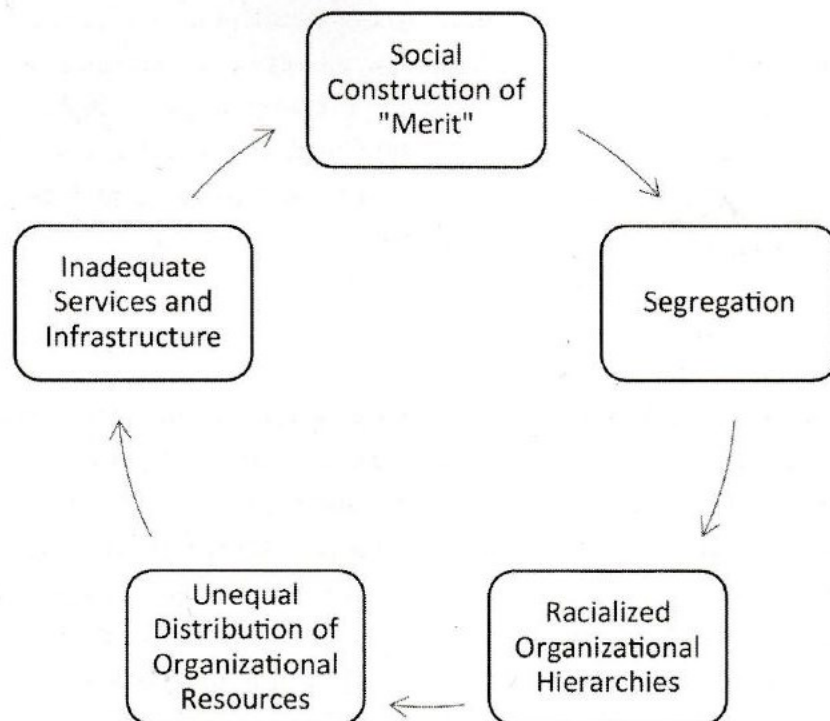
Note. From *Broke: The Racial Consequences of Underfunding Public Universities,* by L. Hamilton & K. Nielsen, 2021, p. 21. The University of Chicago Press.

In interviewing 19 UC and CSU executive leaders, the ideas of excellence, quality, and reputation pervaded. What role and to what extent do these leaders play in further perpetuating the racial neoliberal cycle? And what capacity and power do they have to stop this viscous negative feedback loop? As one CSU president poignantly stated, "We exist in an ecosystem that depends very much on quality at all levels. To the extent that students are subjected to dramatically varying levels of quality, equity is denied" (112, MCE). Most participants proudly touted the high number of neo-traditional students that they serve; however, equity gaps still persist intra and intersegmentally for historically marginalized populations. ***Presently, California higher education legislation, structures, resource distribution, and financial aid formulas are marginalizing the majority of baccalaureate-degree-seeking students.***

Conclusions

Early data revealed that the COVID-19 pandemic economic downturn impacted

California higher education enrollments differently. Traditionally, during economic downturns,

CCC enrollment increases as people return to school to retrain for new career opportunities.

However, the opposite has occurred thus far with CCC enrollments taking a 19% systemwide

decline (CCCCO, n.d.-a). Understanding that the majority (72%) of California college students

attend a CCC (Campaign for College Opportunity, 2021; National Center for Education Statistics

[NCES], n.d.-b) this will invariably impact transfer rates and in turn neo-traditional student

baccalaureate completion rates. Fall 2022 application data reveal a 13% decline ($n = 30,936$) in

UC CCC transfer applicants (UC, 2022c) and a 13.5% decline in CSU CCC transfer applicants

(A. Smith, 2022). With projections that 40% of new California jobs will require a baccalaureate

degree by 2030 (H. Johnson et al., 2019), how will California policymakers and UC/CSU/CCC

systemwide leaders address higher education enrollment and completion concerns?

Implications for Higher Education Executive Leaders

Qualitative semistructured interviews with UC/CSU/CCC executive leaders amidst the

COVID-19 global pandemic yielded insightful discussion regarding "old" and "new" operations

as leaders anticipated a new postpandemic "normal." Understanding that CCC enrollment has

declined significantly, higher education leaders across all three segments must anticipate the

ripple effect this will have on meeting California labor market demands. Some California regions

are projected to experience population declines and therefore declining high school graduates.

Therefore, prioritizing reengagement of adult reentry students will be imperative in addressing

labor market gaps. For example, in the Inland Empire (i.e., Riverside and San Bernardino

counties) 24% of adults age 25+ have some college but no degree (U.S. Census Bureau, 2020).

Further, research reveals that adult reentry students will likely need more flexible learning options if colleges are to retain them through certificate and/or degree completion.

Similar to participants in this study, researchers have identified that neo-traditional students require more flexibility of course offerings and more money to cover tuition and other opportunity costs. A 2022 Lumina-Gallup Student Study surveyed 11,000 adults across the United States and found that 44% of adults not currently enrolled in higher education have considered enrolling in a certificate or degree program. Twenty percent of unenrolled adults have considered pursuing an associate degree, 19% have considered pursuing a certificate, and 12% have considered pursuing a baccalaureate degree (Lumina-Gallup, 2022). The study also found that 85% of students who were enrolled pre-pandemic have considered returning to school. More than half of unenrolled students cited cost as the reason they have not continued their higher education goals. Other researchers also identified similar trends for Californians. In 2022, Heart + Mind Strategies interviewed 1,000+ California adults age 25+ to determine what is preventing them from pursuing the additional career education they need and want (Allsop, 2022). Results found that 51% of participants cited additional financial need and 33% cited a need for greater flexibility, with 62% stating they would *definitely* or *very likely* enroll in a fully online program (Allsop, 2022).

Participants across all three segments revealed repeatedly that neo-traditional students have different needs than prior generations, a result of shift in student population as U.S. higher education shifted from elite to universal access (Thelin, 2019). Neo-traditional students require more financial assistance to meet the perpetual rising cost of living, which in turn forces more students to find work outside of school. As neo-traditional students face more responsibilities outside of school, this in turn increases their need for program flexibility. A couple of

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participants noted the need to rethink traditional entry/exit points and 4-year degree structure. Do employers truly require a 4-year curriculum? For-profit higher education institutions have leveraged the shortfalls of public higher education bureaucratic structures to provide students the flexibility they require. While some participants spoke of increasing their online courses and fully online degree programs, they were few and far between.

Implications for Policy Actors

Complexity theory suggests that complex adaptive systems, such as higher education, will continually adapt to manage competing logics. As California is home to the largest public higher education systems in the nation, California policymakers must acknowledge the variety of competing logics at play, including the uniformity, autonomy, and compliance continuums. If policy actors review the rich and thick data provided from CEOs across the state, they will come to understand that one-size-fits-all approaches do not work in a state as diverse as California. Therefore, when identifying and developing new legislative and systemwide priorities, statewide leaders must acknowledge unique regional needs. Variations in regional metrics include projected population growth/declines, baccalaureate attainment rates, labor market gaps, and cost-of-living expenses.

Addressing Regional Labor Market Gaps

Statewide, 35% of adults age 25+ have a baccalaureate degree or higher; however, baccalaureate attainment rates vary significantly across regions (U.S. Census Bureau, 2020). For example, in San Bernardino County, only 21% of adults age 25+ have a baccalaureate degree or higher while in San Mateo County 52% do (U.S. Census Bureau, 2020). While variations in baccalaureate rates may be reflective of differences in regional labor market needs, research has found that is not always the case. In October of 2019, McKinsey & Company commissioned by

College Futures Foundation, identified that more than one third of the 2030 labor market gap is expected to be concentrated in Los Angeles (425k gap), the Inland Empire (141k gap), and the Central Valley (74k gap). The projected percentage of unfilled jobs requiring a baccalaureate degree is 61% for Los Angeles, 45% for of the Central Valley, 43% for the Inland Empire (i.e., Riverside and San Bernardino counties), with the most gaps concentrated in four occupation clusters: health care, computer and mathematical, engineering, and business and financial occupations. Are policy actors and systemwide leaders utilizing regional needs as a moderator when making budget and enrollment growth decisions? Addressing vast disparities in attainment across the state will require long-term planning, not one-time special funding.

The final 2022-23 higher education budget that was approved on June 30, 2022, is a step in the right direction, addressing participant concerns of unpredictable state funding and enrollment growth. Identified as "multi-year compacts," the new budget included 5% annual increases to base funding to accommodate 1% enrollment growth at both UC and CSU over the next 5 years (Burke & Smith, 2022a; Legislative Analyst's Office [LAO], 2022). By 2026-27 this would result in 14,000 new CSU students and 8,000 new UC students (Burke & Smith, 2022). This plan comes with 55 strings attached (15 for CCC, 22 for CSU, and 18 for UC), with a focus on increasing access, online education, affordability, student success, equity, intersegmental collaboration, and workforce alignment (LAO, 2022). While participants advocated for improvements in these areas, the Legislative Analyst's Office (LAO, 2022) identified several inconsistencies of the proposed performance expectations across systems and lack of clear accountability metrics for said funding. Furthermore, LAO suggests that a 5% increase is not enough to cover CSU's operating costs (e.g., salaries, pensions), meaning that any costs associated with the Governor's performance expectations will not be covered (LAO, 2022).

As UC implements its new tuition stability plan for 2022-23 (UC, n.d.-b), the 5% combined with increased tuition revenue will cover UC's operating costs (LAO, 2022).

Historically, the California legislature has prioritized passage of special one-time funding over changes that require annual funding (Burke & Smith, 2022), in essence keeping one foot out of the door of higher education allowing space to prioritize other statewide needs when budgets constrict. This is evidenced in that 45% of the 2022-23 higher education budget allocations are for one-time special funding projects (LAO, 2022). Participants lamented that state's overuse of special one-time funding as it does not allow campuses the time and space to fully implement and evaluate new programs and initiatives. Is this being fiscally prudent with taxpayer dollars if campus constituents are called to continually chase moving targets? While one-time funding may adequately address new building projects or deferred maintenance costs, it cannot adequately address the core issue of capacity constraints, which require additional instructional and support service staffing.

Equitable Resource Distribution

Increasing access, attainment, and equity are priorities of both legislators and higher education leaders. But policymakers need to be more intentional about how resource distribution impacts equity. If state higher education budget allocations prioritize UC over CCC, where Black, Latinx, low-income, and first-generation students are more likely to attend, then state funding fails to meet the needs of the majority (aka neo-traditional students). Adopting an equity resource distribution framework to ensure that funding models do not disproportionately affect neo-traditional students is imperative. This could include funding allocations based on headcount, not FTES. Being a part-time student does not preclude them from utilizing various campus resources, such as tutoring, counseling, and library resources. In fact, research

(Donaldson & Graham, 1999; Eppler et al., 2000; Grabowski et al., 2016; Hittepole, 2016; Jeffreys, 2007; Remenick, 2019) identifies that part-time neo-traditional students likely require more support services than traditional full-time students. Further, policymakers and systemwide leaders must identify strategies to create parity intrasegmentally as vast differences in access can be identified within each system. Resource distribution must recognize existing imbalances that continue to perpetuate social stratification across the state of California. Until this happens, current structures "will continue to benefit a select few and reinforce a system of inequality—the opposite of what a college degree is meant to achieve" (Yuen, 2020, Conclusion, para. 4).

Addressing Student Financial Gaps

A top concern of participants (UC $n = 9$, CSU $n = 6$, CCC $n = 12$) was financial aid reform at both federal and state levels (i.e., Pell Grant and Cal Grant). Support of doubling existing Pell Grant payouts (from $6,495 to $13,000) was cited by seven participants. Similarly, President Biden and others have pushed this agenda as the 2020-21 maximum Pell Grant of $6,345 covers only 26% of the average cost of attendance (COA) at a public 4-year institution (DeBrey et al., 2021), compared to covering more than 75% of COA in 1975-76 (DeBrey et al., 2021; National Association of Student Financial Aid Administrators [NASFAA], 2022). In essence, Pell Grant awards have not kept up with rising living costs. Spearheaded by the California Student Aid Commission (CSAC), and other advocacy groups, Cal Grant reform bills have also been brought to state legislature. CASC (2022) suggests that current California financial aid structures are outdated and have not kept up with students' total COA, just tuition increases. CASC identifies that "too many students today cannot cover their most basic needs— food and housing —due to a lack of sufficient aid, while other costs for books, supplies, and technology have only grown" (p. 1).

As requested by state legislature, and commissioned by CASC, in 2018, the Century Foundation studied existing state financial aid structures and eligibility requirements and published policy recommendations in *Expanding Opportunity, Reducing Debt: Reforming California Student Aid*. This resulted in the Cal Grant Reform Act (AB 1456), which passed both State Assembly and Senate approval in 2021. While Governor Newsom vetoed AB 1456, in the 2021-22 higher education budget he approved expansion of Cal Grant awards by eliminating eligibility requirements based on age and time out of high school for students at community colleges (CASC, 2022). This resulted in 100,000 additional students being awarded a Cal Grant (CASC, 2022). In May 2022, a revised Cal Grant Reform Act (AB 1746) was approved by the State Assembly and is presently under review by the State Senate. AB 1746, which incorporates the Cal Grant equity framework, proposes additional improvements, including removal of outdated rationing mechanisms, such as amount of time between high school graduation and college enrollment (6-year limit), age of transfer students, and grade point average (GPA) verification. AB 1746 is projected to cost $375 million annually to provide aid to an additional 109,000 CCC students and 40,000 four-year students. A Department of Finance spokesperson for Governor Newsom stated that the projected cost of AB 1746 did not align with the overarching goal to remain "fiscally prudent" (Burke & Smith, 2022). Instead, the Governor's Office prioritizes funding one-time initiatives that do not require annual funding (Burke & Smith, 2022).

While policy recommendations published in the Century Foundation's (2018) *Expanding Opportunity, Reducing Debt: Reforming California Student Aid* included proposed solutions to addressing variations in living costs across the state, neither AB 1456 nor AB 1746 incorporated these recommendations. As Cal Grant eligibility is reliant on federal metrics obtained via the

Free Application for Federal Student Aid (FAFSA), policy actors and higher education leaders have two options: (a) advocate for federal reform to incorporate regional variations in living expenses, already recorded by the Housing for Urban Development (HUD), or (b) implement a cost-of-living adjustment (COLA) metric for state eligibility, with the federal formula serving as a baseline and additional monies allocated for students living in high-cost counties across the state.

Further, policy actors and higher education leaders must also advance the fact that CCC students, who invariably have the greatest financial need, receive significantly less financial aid payouts to cover their total COA when compared to their UC and CSU counterparts. This is the result of variations in how estimated COA is calculated. This point was validated with Szabo-Kubutz and Fung's (2020) study, which identified that low-income students in California pay more to attend a CCC than a UC in all counties where a UC is located. The current structure of financial aid formulas in turn perpetuates the need for CCC students to work more while in school than UC and CSU students.

Nationally, over 80% of community college students work, half of which work full-time (Community College Research Center, n.d.). In 2018, the CSAC administered a survey to California higher education students across all public and private schools. Data from the Student Expenses and Resources Survey indicated that, while 66% of CCC students are working while in school, of the 34% not working, a majority (57%) are looking for employment but unable to find it. The 2020 UC Undergraduate Experience Survey (2020b) found that of the 75,236 survey participants, 31% were working an average of 16.5 hours per week. These data reveal that CCC students are twice as likely to have paid employment than their UC counterparts. Research indicates that Cal Grant recipients enroll in more units and persist at higher rates than their peers

(Kurlaender et al., 2021), therefore, increasing CCC Cal Grant eligibility and award payouts to match true COA, may reduce students' burden to work beyond the optimal 15 hours a week (Kyte, 2017), and therefore, may help revitalize CCC enrollment.

As the 2018 Student Expenses and Resource survey indicated, 66% of CCC participants were working, and another 20% were looking for work (CASC, 2018), leveraging federal work study (FWS) opportunities would benefit students and the state alike. FWS opportunities afford students the flexibility to accommodate class schedules, provide much needed financial assistance, and also engage in formal career skill-building opportunities. In essence, FWS allows schools to leverage federal funding to creatively address neo-traditional student needs. Nationally, the FWS program provides approximately 700,000 student job placements annually; however, only 2% of community college students receive any FWS aid, compared with 14% of undergraduates at private nonprofit 4-year colleges (Anderson, 2020; CCCCO, 2020a; Campaign for College Opportunity, 2020). This is the result of present FWS structures in which more than half of FWS monies are allocated to "legacy" campuses with prior participation, the majority of which are located in the Atlantic northeast and/or are a 4-year private not-for-profit college (O'Sullivan & Setzer, 2014). However, researchers found that highest financial need is found in community colleges located in the southeastern United States (O'Sullivan & Setzer, 2014).

There appears to be a disconnect between some policy actors and the current state of California public higher education. In a June 30, 2022, press release announcing Governor Newsom's final signing of the 2022-23 budget, the Governor's Office website stated, "From our master plan for early learning to free community college, education has never been more accessible in our state" (California Office of Governor Gavin Newsom, 2022). Data outlined in Chapters 1 and 2 clearly illuminates the opposite—access to baccalaureate-level education has

declined as UC and CSU capacity constraints restrict ability to admit all eligible freshman and transfer students (H. Johnson, 2020). Further, "free" community college does not exist, as the total COA for low-income CCC students is often more than low-income counterparts at UC or CSU (Szabo-Kubutz & Fung, 2020). Policy actors must recognize statewide economic gains produced by all three public higher education segments (i.e., UC, CSU, CCC). Prioritizing budget allocations to address higher education capacity constraints and inadequate student financial aid structures are both paramount in meeting labor market demands for a college-educated workforce and the future economic well-being of California.

Recommendations for Policy Actors

Results of this grounded theory study, which included rich and thick descriptions from 47 California public higher education executive leaders (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) produced a multitude of suggestions for improving California student baccalaureate degree access and attainment. The most pressing matters projected to produce greatest impact across the state include:

1. Mandate that all continuing and reentry California higher education students complete the FAFSA or CADAA, as recently mandated for California high school seniors.

2. Adopt and fund Cal Grant Reform Act AB 1746, which proposes several modifications to increase student access to financial aid, including:

   a. Expand access to the awards by eliminating GPA requirements for community college students.

   b. Guarantee awards to students eligible for a federal Pell Grant.

c. Simplify existing structure by consolidating the current Cal Grant awards into two separate grants: the Cal Grant 2 would be for community college students, while students attending 4-year universities would be eligible for the Cal Grant 4.

d. Removal of lottery-based awards, providing guaranteed awards to all eligible students (CASC, 2022).

3. Advocate for federal reform to incorporate regional variations in living expenses, already recorded by HUD, or implement a COLA metric for state eligibility, with the federal formula serving as a baseline and additional monies allocated for students living in high-cost counties across the state.

4. Strategically increase Federal Work Study (FWS) opportunities, especially across CCCs where presently *less than 1%* of students receive FWS monies (CCCCO, 2020a; Campaign for College Opportunity, 2020), and advocate for FWS reform that prioritizes schools based on student need, not "legacy" metrics.

5. Continue advocacy for Pell Grant reform to match the rising cost of attendance, and total cost of attendance beyond tuition and fees.

6. Recognize social and economic benefits of investing more into higher education with state budget allocations for enrollment growth to regions/campuses that
a. have largest gaps in labor market demands for baccalaureate degree holders, and
b. have largest UC/CSU capacity constraints for students living within "local" boundaries.

7. Provide augmented funding for in-demand STEM and healthcare fields, which often have higher operating costs.

8. Expand funding formulas to incorporate true cost of instruction and support services for all students (i.e., total headcount), not just via FTES payouts; part-time student status does not necessarily reduce amount of services utilized.

9. Fiscal and legislative support to increase regional intersegmental collaboration on guaranteed transfer pathway compacts, degree completion partnerships, and baccalaureate program offerings at CCCs, especially in education "deserts."

10. Fiscal and legislative support to streamline disparate processes and technology platforms both intra and intersegmentally (e.g., application, admission requirements, articulation, etc.).

Contribution to the Literature

This qualitative grounded theory study provided rich and thick descriptions of California public higher education executive leader's experiences leading a UC/CSU/CCC. The sample size ($N = 47$) provided both breadth and depth of data that few California higher education qualitative studies have provided. Further, the timing of interviews (summer of 2021) amidst a global pandemic, provided unique insights as institutions grapple with old and new "normals" in which student's longstanding needs for flexibility can no longer be ignored. CEOs' experiences facilitating alignment between macro, meso, and micro forces provides a unique perspective of broader systemic and structural issues that impact California student undergraduate student success. As California neo-traditional student enrollments continually rise, it is important to understand how rigid bureaucratic practices impact student success. As equity initiatives permeate all three segments as a top priority, it is important to recognize institutional site-level, systemwide office, and legislative responsibility to effect positive change.

Suggestions for Future Research

The findings in this qualitative grounded theory study can be expanded upon by further research in a variety of areas. Understanding the capacity constraints of UC and CSU to admit all eligible freshman and transfer applicants, further research to include California private university CEOs to assess what role private universities can play in helping address the projected 1.1 million gap of California baccalaureate degree earners. To further evaluate the transfer climate in California, additional qualitative and/or mixed methods studies could include additional constituent participation beyond CEOs (who are often far removed from the process) that allows comparison of employee (e.g., Transfer Center Directors, Counselors, University Admissions & Outreach Officers, Articulation Officers, etc.) and student perceptions regarding the present transfer climate and remaining barriers. Moreover, additional research surrounding student perceptions of transfer to California private universities is also warranted to identify and address the knowledge barriers and misconceptions students hold, which often serve as nonstarters to even considering applying to a private university.

Given California's historical decline in higher education funding, further exploration of other state funding models as they relate to student success outcomes is warranted. What technology can be leveraged both for business operations and to maximize classroom utilization? Identifying creative solutions that increase fiscal efficiency and student flexibility are a win-win for institutions and students. Given California's shared governance and labor union environment, research designed to further assess the uniformity and autonomy continuums and their relationship to each other in identifying the "sweet spot" operationally to maximize student-centered policy and institutional practices could be conducted. Further, as several participants with higher education work experience outside of California spoke of differences leading out-of-

state institutions, replicating this study in other states to see if similar barriers to baccalaureate attainment emerge is warranted.

To further research the unique position California public higher education executive leaders serve as a filter and buffer between micro constituents (e.g., students, labor unions) and macro structures (e.g., policymakers, governor, system offices), additional quantitative and/or mixed methods studies to assess the validity of the compliance continuum and to determine if additional factors beyond those reflective of this sample (i.e., personal opinion and alignment with institutional mission/goals) exist. Additionally, at the operational level, further research designed to disaggregate compliance levels in response to micro, meso, and macro forces could be investigated.

Implications for Leadership Practice and Research

California public higher education executive leaders identified a variety of challenges they face leading their respective institution as they navigate and facilitate alignment of macro (federal, state, system offices), meso (regional industry, local city governance), and micro (institution and/or district) relationships. Their top challenges as CEO with proposed corresponding solutions are outlined in Table 8.

As public servants and at-will employees, California public higher education leaders play a balancing act on the compliance continuum. Depending on the initiative or charge at hand, some are more compliant, and some are less compliant. This is the result of prioritizing their personal strange attractors (dominant values). As CEO in a strong shared governance and labor union environment, they are called to navigate the autonomy and uniformity continuums. For which policies and initiatives do CEOs value autonomy over uniformity (and vice versa) to optimize student access, attainment, and equity? As many participants cited concerns over

faculty power and resistance to change, which policies and initiatives are faculty willing to

increase uniformity and compliance to streamline career and transfer pathways?

Table 8 – California public higher education leadership challenges and proposed solutions

Leadership challenges	Proposed solutions
Unpredictable, insufficient, and one-year state budget allocations make planning and innovation difficult.	*Increase policy advocacy* and develop creative solutions to achieve more with limited resources (e.g., leverage technology to increase employee output, increase classroom utilization, increase online offerings, etc.).
Facilitate alignment of multiple legislative and system office initiatives.	**Stay mission focused.** Identify the institution's "north star."
Maintain constituent morale when suffering from "initiative fatigue."	*Model the way.* Set the vision for achieving institutional mission and strategic goals. Publicly celebrate small victories and recognize employees for a job well done.
Faculty buy-in and resistance to change, especially as it relates to academic freedom and control of degree requirements and articulation.	*Develop cross-functional teams to address knowledge silos* regarding student impact of curricular mapping and scheduling decisions (e.g., articulation officer, faculty, counselor). Identify "champions" to spark 20/60/20 change movement.
Top-down leadership approaches don't work. There are too many veto points throughout shared governance and working with unionized faculty and staff.	Utilize shared governance processes to *empower* employees to be accountable by setting clear goals and monitoring progress. *Communicate transparently* the reasons *why* final decisions were made.

Concluding Thoughts

As a complex adaptive system (CAS), public higher education is designed to respond to

environmental shifts by self-correcting, evidenced by increasing selectivity, and therefore, social

stratification, as capacity constraints restrict access to UC and CSU. Another self-correction can

be found in the inverse relationship between declining state higher education investments and rising tuition and fees at UC, CSU, and CCC. Further, as the value of federal and state financial aid adjusted for inflation has declined, the percentage of students burdened to work while in school has increased. Therefore, policymakers must prioritize California student access and equity for baccalaureate attainment by incentivizing compliance for strategic policies (via positive and negative levers), or the CAS of higher education will maintain status quo structures, which presently marginalize the majority of California higher education students. The results of this qualitative grounded theory study, which included 47 (UC $n = 11$, CSU $n = 8$, CCC $n = 28$) California public higher education CEOs, found that

1. Executive leaders navigate autonomy and uniformity differently. These two continuums overlap and are a function of unique regional dynamics and personal leadership.

2. People land at different places on the compliance continuum depending on the policy or initiative.

3. Lawmakers need to prioritize higher education as a top priority and long-term investment in the future state economy. If not, piecemeal initiatives and special one-time funding are left to the mercy of CEO priorities. As complexity theory postulates, everyone chooses their own strange attractors (dominant values).

This study revealed the messiness of public higher education administration and proposed a model for understanding and navigating policy priorities among the micro, meso, and macro environments. At the institutional site-level, compliance with legislative and system office policy is the result of strange attractors (dominant values) and CEO leadership practices and priorities. This study suggests that regional needs (e.g., industry, students, employees) are unique and

should serve as the moderator in legislative and system office policymaking and resource

distribution.

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APPENDICES

APPENDIX A

Consent to Participate

Introduction: My name is Brittnee Quintanar, and I am a PhD candidate in the leadership studies program at California Baptist University (CBU). I am excited to extend an invitation to you to participate in a research study about higher education mandates and their effect on baccalaureate access and completion, with a focus on the transfer function in California. You were selected as a potential participant in this study because you are currently employed as an administrator at a California higher education institution. Your thoughts and experiences as a higher education administrator are invaluable to shedding light on the complexity you face at the individual campus level to navigate competing missions and mandates (i.e., local, state, federal).

What to Expect: If you choose to participate, your thoughts will be collected via a virtual one-on-one Zoom interview. The interview is expected to last 30 - 45 minutes and can be scheduled at a time most convenient to you. Once all participant interviews have concluded, I will email you a follow-up summary of your responses as well as collective responses of your colleagues across the state so that you may confirm I captured your thoughts accurately. You will also have the opportunity to provide additional comments after reading the summary results.

Risks and Benefits: There are no expected risks for participating in this research. If you do become fatigued, please remember that your participation is voluntary, and you may end your participation at any time. Although I cannot guarantee that you personally will receive any benefits from this research, you will be provided a summary of research findings. Furthermore, the results of this study can provide insightful information for higher education policymakers and legislators.

Data Protection and Privacy: If you agree to participate in the one-on-one interview process, your name will only be used for the purpose of this consent form. You will be assigned a random alphanumeric identification for tracking purposes. Your name and employer/school name will remain confidential throughout the duration of the study and any resulting narratives. This consent form will be stored in a secured password protected database that only can be viewed by me, the Principal Investigator of this study.

Participation: Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with me, the school that you work for, or CBU. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time.

Questions and Contacts: This research study has been formally approved by CBU's Institutional Review Board (IRB# 058-2021-EXM). If you have any questions about this research (before or after participating), please contact me at brittneea.quintanar@calbaptist.edu, or contact my dissertation chair, Dr. John Shoup at jshoup@calbaptist.edu or at (XXX) XXX-XXXX. If you have any questions regarding your rights as a research participant, please contact the CBU Institutional Research Board (IRB) at IRB@calbaptist.edu.

Consent: Your email response to the invitation to participate will serve as acknowledgement that you have read and understand the information provided above, and that you willingly agree to participate in this research study.

APPENDIX B

Invitation to Participate

Request for Interview - Dissertation Research

Brittnee A. Quintanar <BrittneeA.Quintanar@calbaptist.edu>
Tue 6/29/2021 6:32 PM

To:

Cc:

📎 1 attachments (20 KB)
Informed Consent [B. Quintanar].docx;

Greetings   ,

My name is Brittnee Quintanar, and I am a PhD candidate in the leadership studies program at California Baptist University (CBU). I also work as a counseling faculty at a California community college. I would be honored to interview you for my dissertation research on how California college and university leaders manage the many and diverse higher education mandates with a focus on California baccalaureate access and the community college transfer function.

The 30-minute interview will be conducted via Zoom and can be scheduled at a time most convenient to you, including evenings and weekends. The results of the interview will remain confidential as your responses will be grouped with those from other participants and will not include any identifying information.

Your reply to this email will serve as confirmation that you have read the attached voluntary informed consent and agree to participate. Please include in your reply your availability or the person I can contact to schedule the interview.

This research study has been formally approved by CBU's Institutional Review Board (IRB# 058-2021-EXM). If you have any questions about this research, you may contact me directly at brittneea.quintanar@calbaptist.edu or via my cell phone at (XXX) XXX-XXX, or contact my dissertation chair, Dr. John Shoup at jshoup@calbaptist.edu or at (XXX) XXX-XXX.

Thank you in advance for your consideration,

Brittnee A. Quintanar, M.A.
brittneea.quintanar@calbaptist.edu

IRB Approval

IRB # 058-2021 EXM Approval

Institutional Review Board <IRB@calbaptist.edu>

Fri 3/12/2021 2:37 PM

To: Brittnee A. Quintanar <BrittneeA.Quintanar@calbaptist.edu>;Institutional Review Board <IRB@calbaptist.edu>

Cc: John Shoup <jshoup@calbaptist.edu>

RE: IRB Review
IRB No.: 058-2021

Project: Marginalizing the Majority: California Barriers to Baccalaureate Access

Date Complete Application Received: 2/20/2021
Date Final Revision Received: N/A

Principle Investigator: Brittnee A. Quintanar
Co-PI: N/A
Faculty Advisor: Dr. John Shoup

College/Department: Leadership Institute

IRB Determination: Exempt Application **Approved** – Faculty research using interview survey; no minor participants; no more than minimal risk/risk appropriately mitigated; no deception utilized; acceptable consent procedures and documentation; acceptable data protection procedures. Data collection may begin, in accordance with the final submitted documents and approved protocol.

Future Correspondence: All future correspondence about this project must include all PIs, Co-PIs, and Faculty Advisors (as relevant) and reference the assigned IRB number.

Approval Information: (Expiration: Full Review Only) Approval is granted for one year from date below. If you would like to continue research activities beyond that date, you are responsible for submitting a Research Renewal Request with enough time for that request to be reviewed and approved prior to the expiration of the project. In the case of an unforeseen risk/adverse experience, please report this to the IRB immediately using the appropriate forms. Requests for a change to protocol must be submitted for IRB review and approved prior to implementation. At the completion of the project, you are to submit a Research Closure Form.

Researcher Responsibilities: The researcher is responsible for ensuring that the research is conducted in the manner outlined in the IRB application and that all reporting requirements are met. Please refer to this approval and to the IRB handbook for more information.

Date: 03/12/2021

APPENDIX D

Sample Interview Questions for UC/CSU CEOs

Research Question 1 (RQ1) - How do California college higher education leaders perceive the current climate of baccalaureate access and completion, and what are their suggestions for making improvements?

- What are your thoughts surrounding baccalaureate *access* in the state of California?
- Do you think there is a role CCCs can play in offering baccalaureate programs? And if so, in what capacity?
- What do you think the top three (3) systemic factors/challenges are that currently inhibit baccalaureate *completion* across the state of California and at your institution?
- How is your institution addressing the CSU Graduation 2025 Initiative?
  If you had a magic wand, what federal and/or state policies would you like to see changed or implemented to increase the efficiency of baccalaureate attainment across the state?

Research Question 2 (RQ2) - How do California higher education leaders perceive the current climate of transfer, and what are their suggestions for improving baccalaureate access to CCC transfer students?

- What do you think are the top three (3) institutional and systemic factors/challenges inhibiting transfer *to* your institution from CCCs?
- Do you see any room for improving the transfer function within the state of California? And if so, how?

Research Question 4 (RQ4) - How do California higher education leaders prioritize multiple and competing initiatives from various stakeholders (e.g., federal, state, UCOP/CSU/CCC Chancellor's Office)?

- How long have you been in your current position? What was your previous role?
- What are the top three challenges you face as President/Chancellor/CEO?
- What strategies do you employ to tackle some of the challenges you mentioned?
- Do you feel that you ever receive competing initiatives/mandates from UCOP/state legislature?
- How do you prioritize which mandates/initiatives receive human and fiscal resources at your institution?
- What are the top three values/missions that drive budget decision-making at your institution?
- As President of the university, what do you see is your role in meeting the CSU Graduation 2025 Initiative?

Sample Interview Questions for CCC Presidents

Research Question 1 (RQ1) - How do California college higher education leaders perceive the current climate of baccalaureate access and completion, and what are their suggestions for making improvements?

- What are your thoughts surrounding baccalaureate *access* in the state of California?
- What do you think the top three (3) systemic factors/challenges are that currently inhibit baccalaureate *completion* across the state of California?
- How is your institution addressing the *Vision for* Success goals?
- If you had a magic wand, what federal and/or state policies would you like to see changed or implemented to increase the efficiency of baccalaureate attainment across the state?

Research Question 2 (RQ2) - How do California higher education leaders perceive the current climate of transfer, and what are their suggestions for improving baccalaureate access to CCC transfer students?

- In the new Student-Centered Funding Formula, money is directly tied to number of transfer students you get out the door. What is your institution doing to increase transfer rates to four-year colleges?
- What do you think has to be in place at the site level in term of supporting students that want to transfer to earn a baccalaureate degree?
- What do you think are the top three (3) institutional and systemic factors/challenges inhibiting transfer *from* your institution to four-year universities?
- Do you see any room for improving the transfer function within the state of California? And if so, how?

Research Question 4 (RQ4) - How do California higher education leaders prioritize multiple and competing initiatives from various stakeholders (e.g., federal, state, UCOP/CSU/CCC Chancellor's Office)?

- How long have you been in your current position? What was your previous role?
- What are the top three challenges you face as President/Superintendent?
- What strategies do you employ to tackle some of the challenges you mentioned?
- Do you feel that you ever receive competing initiatives/mandates from CCCCO/state legislature?
- How do you prioritize which mandates/initiatives receive human and fiscal resources at your institution?
- What are the top three values/missions that drive budget decision-making at your institution?
- As President what do you see is your role in implementing [Vision for Success, Guided Pathways, etc.] at your institution?