

Evaluating Higher Education Finance for California's Future

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This issue brief series is part of the California 100 initiative. The purpose of this brief is to foster conversations about the future of education in California. You may [read the full report here](#).

Overview

California has ambitious goals for its higher education system. Most notably, lawmakers established [goals](#) in the state's education code to expand college access to more students, improve college affordability, and ensure that more students are prepared for the challenges of a 21st century labor market. Achieving such goals across the state's massive higher education system is no easy task and requires that colleges and universities have the resources necessary to meet the challenge. In this brief, we address the following questions: How does California currently fund its higher education system? Are current funding levels sufficient to provide the resources necessary for all students, regardless of socioeconomic background or ability, to meet statewide goals?

To answer the first question, we draw on existing research from California's leading higher education researchers and our own original data analysis. To address the second question, we review existing research and use the concepts of *adequacy* and *equity* to evaluate whether current funding levels are sufficient for all students to meet the goals established by state leaders.¹ In its simplest definition, *adequacy* addresses how much funding students need to achieve at least a minimum outcome standard, such as average performance on standardized tests. *Equity* is the concept that some students, such as English Language Learners, low-income students, disabled students, or other students with special learning needs—require more funding than the average student to achieve desired educational outcomes. Therefore, funding levels must account for additional programs, services, and other resources that disadvantaged students require to ensure that each student has the support they need to achieve desired learning goals.²

Summary of findings

Higher education financing

- The funding landscape of higher education in California largely mirrors the nation at-large with broad state disinvestment over the last two decades. Despite the cuts experienced during

¹ Equally important in our evaluation of the education system is the issue of *stability*; see the 'stability of education funding' issue brief for more information.

² It is important to note that modern legal definitions of adequacy often recognize that the amount needed for all students to achieve certain goals or outcomes may vary across students, schools, and districts. This means that *equitable* funding is often associated with an adequacy definition to ensure that the finance system compensates for the cost of educating students from different socioeconomic backgrounds or with special learning needs. We discuss equity as a standalone concept from adequacy; however, we acknowledge that equity often goes hand-in-hand with adequacy, and point out the relationship where appropriate.

recessions, over time state funding across the UC and CSU segments have experienced a general decline while the CCC has actually seen upward growth in state appropriations.

- State funding for CCCs has likely grown over time since the majority of funding for the segment is tied to Proposition 98, which allocates a percentage of the state's General Fund to K-14 education. No such budgetary protections exist for the UC and CSU systems, which is a primary reason why funding has declined for those segments.
- Staff and faculty salaries represent the largest spending category on a student FTE, inflation-adjusted basis across all California higher education systems. Across all three systems, benefit expenditures have also increased rapidly in recent years.

Adequacy findings

- State lawmakers do not leverage an adequacy definition or formula to fund the inputs necessary for the higher education system to meet statewide goals.
- On the other hand, state lawmakers have clearly defined the goals of the higher education system: namely, to expand college access, encourage retention, and graduate more students with degrees and credentials to meet labor market demand.
- While these goals have reoriented the three segments toward a unifying north star, the state legislature has demanded more of the higher education system without adequately funding the segments to reach these new goals.
- A lack of an adequacy formula has led to consequences for students and higher education institutions, namely, increases to student tuition, overcrowded campuses, and ongoing cost pressures in campus budgets that are overlooked in state funding decision-making.
- No current estimate exists to put a dollar amount on how much it would cost to reach the statewide goals established by lawmakers. However, there are some estimates of how much it would cost to eliminate tuition—ranging from \$4-15 billion per year—that provide a very rough estimate of how far the state may have to go to adequately fund higher education.

Equity findings

- State lawmakers made progress to improve student access, equity, and success by establishing a new student-centered funding formula in the CCCs that ties funding for the CCCs to how well their students are doing.
- Student equity is also addressed by financial aid programs at the federal, state, and institutional level. A 2019 study found that California is one of the country's most generous states for student aid programs; about half of all students across the three higher education segments (especially low-income students) pay no tuition at all.
- Some researchers think that student aid programs could go further to address the costs of college beyond tuition, such as the costs of housing, transportation, books and supplies, and other basic needs, especially for low-income students.

The bottom line: Since funding decisions for higher education are mainly discretionary in California, there is no guarantee that students or colleges and universities will receive adequate funding in any given year leading to consequences for students in the form of higher tuition, and consequences for higher education institutions in the form of capacity issues and growing cost pressures. The state does address equitable funding with student financial aid policies, however, the state has more progress to make to address the true cost of college attendance in student aid formulas. To adequately (and equitably) fund the higher education system, the state would greatly benefit from a formula that calculates the inputs necessary for all students, regardless of socioeconomic background to achieve the state goals of access, retention, and graduation.

How is higher education funded in California?

The funding landscape of higher education in California largely mirrors the nation at-large with broad state disinvestment over the last two decades (Desrochers & Hurlburt, 2016). According to the [American Academy of Arts and Sciences \(2015\)](#), public investment in higher education across the US has decreased significantly over the last several decades, and accelerated rapidly during the 2008 Great Recession. A report from the [Center on Budget and Policy Priorities](#) narrowed in on the effects of the Great Recession and found that total state spending on higher education (adjusted for inflation) fell by about \$20 billion between 2008 and 2013, and by 2017, states were still funding higher education below 2008 levels. The report found that this caused student tuition at public four-year colleges to rise across states, with an average increase of 35 percent; California raised its tuition nearly the most of any state and saw tuition increases at public 4-year colleges surge by 63 percent from 2008-2017.³ Like other states (Desrochers & Hurlburt, 2016), California was forced to look for other revenue sources to backfill state cuts and began relying more on revenue from hospitals, private gifts and grants, and investment returns (see Finance Appendix Figures 10 and 11).

While the recession caused dramatic state cuts across California's higher education sector, there are important distinctions across each of California's three higher education segments. Looking back to 1987, Figure 1 below shows that there has been significant volatility across each system throughout the last few decades, and this has generally corresponded to the performance of the state (and national) economy over the period. The largest drops for all segments occurred during periods of economic recession, including the early 1990s, the early 2000s, and the 2008 Great Recession.

Despite the cuts experienced during recessions, over time state funding across the UC and CSU segments have experienced a general decline while the CCC has actually seen upward growth in state appropriations.⁴ State appropriations to the UC system in 2020 are half of what they were in 1987. In the same time period, CSU appropriations dropped by 31 percent while CCCs did notably better with a 48 percent increase in state appropriations over the time period shown. State funding for CCCs has likely grown over time since the majority of funding for the segment is tied to Proposition 98, which allocates a percentage of the state's General Fund to K-14 education. In a typical year, K-14 education will receive about 40 percent of the state's General Fund revenue; community colleges should statutorily receive 10.93 percent each year, but in most years [they receive less](#) than that share.⁵ No such budgetary protections exist for the

³ California lawmakers attempted to offset tuition increases for low-income students with student financial aid programs (Jackson & Warren, 2018). For a look at how overall higher education appropriations have changed as a proportion of state General Fund spending, see Finance Appendix Figure 8; for a breakdown of how revenue streams for each of California's three higher education segments have changed over time see Finance Appendix Figure 10.

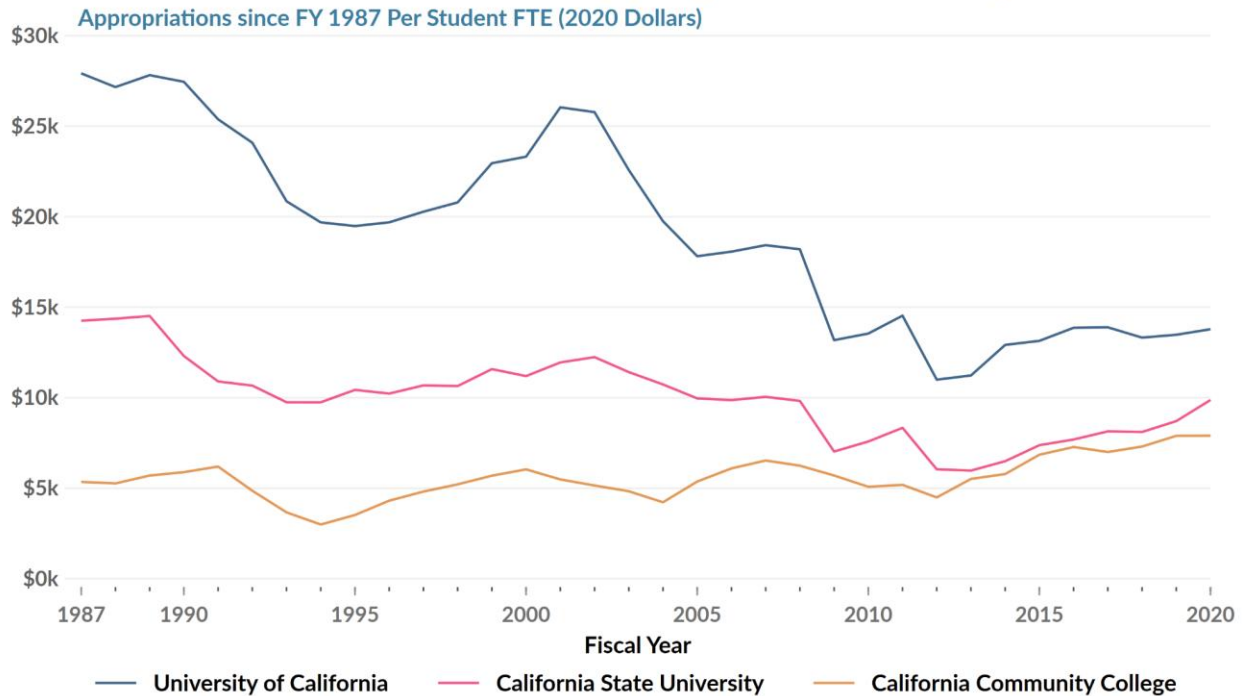
⁴ The figure adjusts state General Fund appropriations to each system for inflation and the size of each system's student body each year (in full-time equivalents).

⁵ Even though CCCs have a dedicated revenue stream guaranteed by funding allocations from Proposition 98, the system is in direct competition with K-12 and lawmakers do not necessarily follow the division of spending between K-12 and CCCs defined in the state education code (for more information, see Murphy, 2004).

UC and CSU systems, which is a primary reason why funding has declined for those segments. The many drawbacks of the state’s revenue allocation process has led some researchers to think ‘out of the box’ to reimagine how the state funds the higher education segments (College Futures Foundation, 2017).

Figure 1

California General Fund Appropriations to Higher Ed



Source: Expenditure data from the Legislative Analyst’s Office, FTE data prior to 2019 from IPEDS, via Education Data Portal v. 0.14.0, Urban Institute, under ODC Attribution License, and post-2018 FTE data from IPEDS.
 Sample: All UC’s, CSU’s, and CCC’s with available data. UCSF and UC Hastings are excluded from the UC sample.

Some good news is that state funding has increased across all systems since the 2011 trough following the Great Recession with the increase in funding levels for CCC’s especially pronounced. In addition, a 2018 report from the Public Policy Institute of California found that higher education is generally more affordable here than other states (Jackson & Warren, 2018). Researchers found that the UC system is slightly more expensive than other comparable research institutions in the U.S., while CSU is slightly less expensive, and the CCC system is the least expensive in the nation.

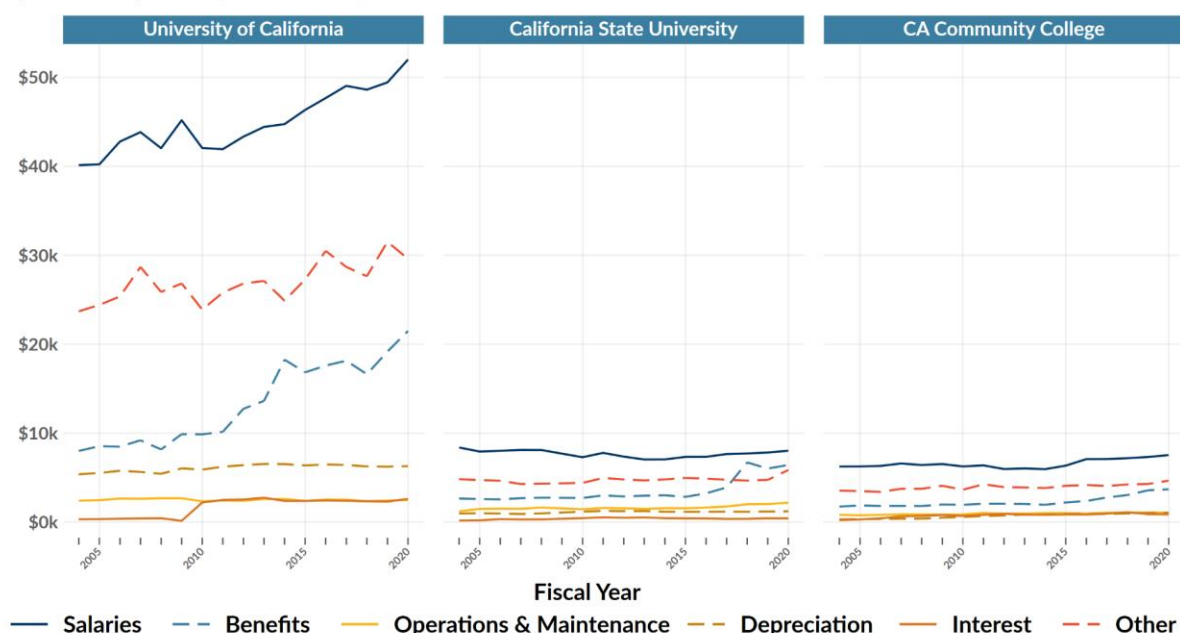
Free tuition

Some states, including California, have experimented with providing free higher education to students. Tennessee launched the Promise Scholarship in 2015 that offers high school graduates tuition-free access to two-year public colleges, which inspired the states of Oregon, Rhode Island and New York to follow suit. New York broadened the eligibility requirements and provided free tuition to public two- and four-year institutions for resident students from families with income up to \$125,000. California currently offers the California College Promise grant to California residents, which waives fees at the CCCs making community college essentially free to those who are eligible.

Spending at colleges and universities typically includes instructional costs such as faculty salaries and benefits, as well as non-instructional costs related to student services, academic support and research activities, and operation and maintenance of facilities, among other smaller costs (Desrochers & Hurlburt, 2016). As seen in Figure 2 below, staff and faculty salaries represent the largest spending category on a student FTE, inflation-adjusted basis across all California higher education systems. UC staff and faculty salaries generally dominate, with salary compensation 6 to 7 times higher than the CSU's and CCC's, respectively, after adjusting for spending by student FTE. Salaries per student FTE at the CSU and CCC system are much more modest, and this is likely due to a staffing strategy that relies far more on part-time faculty and adjuncts than on full-time employees (California State University, 2021; Smith, 2012). Notably, salaries at CSU's actually shrank over this period, while salaries at CCCs increased only slightly.

Figure 2
Composition of Expenditures

Expenditures per FTE (2020 Dollars)



Source: Data prior to 2019 from IPEDS, via Education Data Portal v. 0.14.0, Urban Institute, under ODC Attribution License, and post-2018 finance and FTE data from IPEDS.
 Sample: All UC's, CSU's, and CCC's with available data. UCSF and UC Hastings are excluded from the UC sample.
 Notes: Other expenditures is defined as the balance between reported total expenditures and the sum of salaries, benefits, operations & maintenance, depreciation, and interest. We further narrow the sample using listwise deletion to all schools with available expenditure and FTE data.

Across all three systems, benefit expenditures have also increased rapidly in recent years (see also Hyatt, 2016). For community colleges, health care premiums increased 5 percent on average in 2020 alone, though some districts saw increases as high as 8 or 9 percent (Constantouros & Steenhausen, 2019). For the CSUs and UCs, between FY20 and FY21 health benefit expenditures for current employees and retirees increased 6 percent year-over-year (Constantouros & Steenhausen, 2019). This trend is driven by a variety of factors, including the long-term growth of [national health care costs](#).

It is important to note that UCs spend far more per student than do the CSUs and CCCs, especially on salaries, benefits, and other costs. When thinking about adequacy funding, this presents an important question about how much spending is required for each of the three segments to reach their goals. While the goals of the CSUs and CCCs are instructional and the goal of the UCs is research-based (according to the state's [Master Plan](#)), spending more per student on the most elite institutions (the UCs) may be problematic if the state is to reach the [broader goals](#) of expanding access, retaining more students, and improving graduation rates. The issue is further complicated by issues of student equity and the fact that [CCCs](#) and [CSUs](#) educate far more students and serve many more Black, Latino, and low-income students than the [UCs](#).

Is higher education funding adequate?

Like the early care and education (ECE) and K-12 funding system, California does not have an adequacy definition or formula used to fund higher education. Instead of establishing a calculated formula to determine the costs of inputs necessary to address student and institutional needs to reach statewide goals, spending decisions for higher education come down to political decision-making by state lawmakers. This is not unusual among other states, but it is a topic of development for researchers who are developing ways to [apply adequacy logics](#) developed in K-12 to higher education.⁶

Similar to the progress that California legislators have made to define goals in ECE and K-12, state lawmakers have made progress in defining *outputs* or goals for all three segments of higher education in the Golden State, which are useful for thinking about the foundations of an adequacy funding definition. In 2013, the legislature established [statewide goals](#) in the education code to expand college access, encourage retention, and graduate more students with degrees and credentials to meet labor market demand.⁷ More specifically, language added to the education code by [SB 195](#) states that higher education policy and budget decisions should adhere to the following goals: 1) to improve student success and access, especially for low-income students; 2) to better align degrees and credentials with the state's economic, workforce, and civic needs; and 3) to ensure the effective and efficient use of resources to improve outcomes and maintain affordability.

While these newly established goals have reoriented the three segments toward a unifying north star, the state legislature has demanded more of the higher education system without adequately funding the segments to reach these new goals. Lawmakers have not funded the three systems to [accommodate increasing student enrollment](#) encouraged by goal #1, nor have state lawmakers provided sufficient funding for the organizational conditions of a

⁶ There are some difficulties with estimating adequacy for higher education since post-secondary education is not compulsory, not all students enroll full-time, and outcomes are not always easily defined for higher education like they are for K-12 since students enrolled in colleges and universities can choose different pathways and degree options with varying short- and long-term goals (Baker & Levin, 2017).

⁷ The [1960 Master Plan](#) (also known as the Donohue Act) laid out an initial vision for the state's three higher education segments focusing on the goals of access and affordability.

[high quality education](#) to take root that are necessary for goal #2. Whether the legislature has held true to goal #3 is debatable, given that the cost of higher education tuition continues to rise, especially at the [UCs](#) and [CSUs](#), and student financial aid has not kept pace with the [true cost of attending college](#). These are certainly shortcomings of the current funding system, but there is potential that lawmakers could use the goals established in the education code as a starting point to develop an outcome-oriented funding formula (see Baker & Levin, 2017).

Effects of not having an adequacy funding definition or formula

Compared to K-12, there is little research on adequacy funding for postsecondary education nationwide (for an exception, see a recent paper from Baker & Levin [2017] that addresses adequacy funding for community colleges). One possible reason for this discrepancy is that funding higher education is not an obligation written into state constitutions like primary education, and therefore states may not consider fully funding higher education a state responsibility. However, California has a unique history that establishes a commitment to the public higher education system with the [1960 Master Plan for Higher Education](#) (and the accompanying Donohue Act that establishes many of the Master Plan principles in statute). The Master Plan established the three higher education segments, each with their own mission and eligibility targets, and identified other goals for higher education such as the state's intention for the segments to remain accessible, affordable, high-quality, and accountable. This legislative landmark makes it even more profound that California lacks an adequacy funding definition or formula for its higher education system. Since California does not use any adequacy benchmark, there are consequences for higher education institutions and students. Namely, students have seen an increase in net tuition, both UCs and CSUs have enrollment capacity issues, and there are growing cost pressures that are overlooked in state appropriation decision-making. We briefly review each of these issues in turn.

Increases in net tuition - A consequence of state appropriation declines is that students have seen stark increases in net tuition since the early 2000s (gross tuition minus any allowances/deductions to students). In Appendix Figure A9, we show how net tuition and state appropriations have changed over nearly two decades. State cuts have been sharpest in the UC system over the last two decades and generally outpaced any increases in net tuition on an FTE-adjusted basis. Since 2011, however, some of the Great Recession era cuts to the UC system were modestly reversed while net tuition continued to increase. Relative to 2002, the state had cut appropriations by about \$10,900 per FTE by 2020 while tuition rose to \$11,400 per FTE in the same year. Since 2015, net tuition increases have almost identically offset state cuts in the UC system dollar for dollar on a per FTE basis. The CSU system has fared better in terms of state cuts, and therefore students in those systems have experienced less severe tuition increases. As seen in Figure A9, much of the post-2001 cuts to the CSU's were reversed in the 2012 post-

recession period. The increase in net tuition at CSU's reached a peak of close to \$3,000 in 2012 but has since been on the decline.⁸

Capacity issues - Both the UCs and CSUs have seen rapid increases in student enrollment in recent years in response to state legislators' efforts to improve access, retention, and graduation rates in the state's public colleges and universities (Constantouros & Steenhausen, 2019).⁹ Because state appropriations for the UC and CSU systems have not kept pace with the growth in student enrollment, CSUs in particular have pushed many students into online programs since it has exceeded its capacity to accommodate in-person instruction, and now serves one third of students in partial or fully online programs (Cook & Mehlotra, 2020). CSUs are also rejecting thousands of qualified freshman applicants each year, many of whom are disadvantaged students (Cook & Mehlotra, 2020). The UC system has responded to enrollment growth by increasing class size and student-to-faculty ratios and has underinvested in facility maintenance and growth quality (Douglass & Bleemer, 2018). Recently, the UC Board of Regents voted to [increase tuition](#) in the coming years to address increasing enrollment and reduce the risk of diminishing educational quality further.¹⁰

Cost pressures - Like the K-12 system, the three higher education segments are facing serious cost pressures, most notably from deferred maintenance costs for campus infrastructure and rising pension costs.¹¹ While the state historically funded a significant portion of the UC's capital outlay, in 2013-14, the state legislature decided to no longer fund the UC's capital budget through state bonds or other state resources. Instead, the UC is now expected to issue their own bonds to fund capital projects and pay for the debt service on these bonds out of general operating funds. The state took a similar action with the CSUs in 2014-15 (Constantouros & Steenhausen, 2019). Both university systems also face a backlog of capital projects due to aging infrastructure and the increasing cost of seismic compliance. Rising pension costs have also had a large impact on higher education budgets. During the Dot Com bubble in the late 1990s state pension funds were performing well and the state legislature passed legislation that greatly increased pension guarantees for state workers and allowed

⁸ During the Great Recession, a report from the Public Policy Institute of California (2018) found that the share of first-time college students taking out loans increased from 40 to 48 percent at the UC and 30 to 38 percent at the CSUs; this limited access at public institutions as student enrollment dropped across all three segments (Jackson & Warren, 2018).

⁹ CCCs have only seen modest growth since 2012, but overall, have also experienced rapid growth since the 1980s. Higher education enrollment growth has also been encouraged by policies in K-12 that focus on college and career readiness and higher graduation rates (Gao, 2016); Douglass & Bleemer (2018) also note that enrollment growth is a much longer trend and has been on the rise (especially at the UCs) since the 1990s.

¹⁰ The vote to increase tuition was also in response to a legislative mandate to limit enrollment of [out-of-state students](#); enrolling more out-of-state students was formerly a [revenue strategy](#) following the Great Recession budget cuts, since the UC can charge about \$20k more in supplemental tuition per out-of-state student.

¹¹ There are other cost pressures that the UCs, CSUs, and community colleges are facing that we do not address here. For more information on these cost pressures see this [LAO analysis](#).

workers to retire at earlier ages (Dolan, 2016; Lin, 2018).¹² Yet assumptions about stock market gains and the stability of the economy were shortsighted—returns on pension investments dropped precipitously when the dot-com bubble burst, and unfunded pension liabilities have continued to grow since that time (Dolan, 2016). During the recession that followed, the state stopped providing subsidies for pensions and health benefits for UC employees altogether (Douglass & Bleemer, 2018). In response, the UCs were forced to pick up full pension funding, significantly affecting the University’s overall financial stability.¹³ On the other hand, the state has continued to fund these pension costs for the CSUs and community colleges.

A note on salaries for public higher education educators in California

It is no secret that higher education institutions in California (and nationally) try to cut costs by hiring faculty on non-tenured tracks, hiring faculty part-time, or hiring lecturers and adjuncts that work on an hourly or course load basis rather than being paid as salaried positions. Some researchers have dubbed this trend the ‘unbundling’ of the faculty role, and the trend has taken off across higher education institutions in recent years.

Faculty hiring at the UC—for both ladder-rank and lecturer positions—has increased over the last decade to accommodate growing student enrollment, and faculty salaries have risen over the last decade as a strategy to recruit top researchers and academics, but current salaries pale in comparison to salaries offered at private 4-year institutions. A CalMatters article highlighted the fact that even though UC lecturers provide about one-third of the instruction undergraduates receive, about a quarter of lecturers do not return year-over-year due to low pay and little job stability. This is one reason why lecturers across UC campuses nearly went on strike during November 2021.

At CSUs, about 80 percent of faculty are ladder-rank and roughly 20 percent are lecturers, but about half of all instructional faculty are part-time (California State University, 2021). A 2015 survey reported by the *Los Angeles Times* found that on average, CSU faculty earn about \$45,000 annually, but many struggle financially and report needing to work at least two jobs.

At CCCs, the majority of faculty teach part-time or are adjunct faculty—a strategic decision to save money on the cost of instruction following the passage of Proposition 13 in the late 1970s, a constitutional amendment that reduced local property tax revenue for community colleges (Spinetta, 1990). Today, the majority of faculty and ‘adjuncts’ at CCCs teach with average wages of just a few thousand dollars per course taught (see also Smith, 2012) and many associate faculty do not earn livable wages for teaching full course loads and receive public assistance. This aligns with nationwide trends where the average pay for adjuncts is about \$3,500 per course taught, and many adjuncts across the country reportedly live in poverty and struggle to pay basic household expenses. The COVID-19 pandemic worsened conditions for CCC adjuncts, many who were forced to transition online without adequate compensation for their time.

¹² Some pension plans even took so-called “pension holidays,” and stopped making the actuarially required annual contributions entirely. In fact, the University of California Retirement Plan took a 20-year hiatus from making its pension contributions (Hyatt, 2016).

¹³ The state has made occasional one-time contributions to help the UCs pay down their pension obligations, including in 2015 when then-Governor Jerry Brown allocated over \$400 million to assist the University with its unfunded pension liability, but the state has not provided systemic annual funding to address the issue. The most recent actuarial valuation indicates that the UC’s retirement system has an unfunded pension liability of \$16.6 billion (Constantouros & Steenhausen, 2019).

Is higher education funding equitable?

The issue of student equity has been a persistent and growing tension in debates about higher education finance in California as the cost of college tuition at the [UCs](#) and [CSUs](#) continues to grow, posing barriers to college retention and completion for many students, especially for Black and Latino students and those from low-income backgrounds (Johnson & Cuellar Mejia, 2020). The Governance paper covers many of the policy reforms to address these challenges, but below we describe two main strategies the state legislature has used to leverage the finance system to offset student inequalities and help students achieve the state's higher education goals.

Student centered funding formula - In 2018-19, state legislators made major progress to improve student access, equity, and success by establishing a new [Student Centered Funding Formula](#) to allocate funds to community colleges. Historically, the state granted CCCs funding based on student enrollment alone, but there was [political momentum](#) to change the funding formula to incentivize the segment to align with state goals to produce more college graduates, close equity gaps, and reduce time to degree completion and transfers. The new formula is considered a '[performance-based](#)' budgeting practice that has spread nationwide; in California, the formula ties funding for CCCs to how well their students are doing. In 2019-20, about 70 percent of the CCC's state [funding](#) was appropriated based on enrollment, 20 percent was linked to equity factors, and 10 percent was tied to measurable outcomes for student success, such as graduation and transfer rates and the time to degree completion. Note that the effectiveness of performance-based budgeting is debated in academic literature since there are often unintended consequences of the policy's design and it is unclear whether the policy actually improves student outcomes. (For more information, see Dougherty et al., 2014.)

Student financial aid - In light of rising student tuition in California and nationally, financial aid programs have been the primary policy lever to increase access to higher education and improve retention and graduation rates. Financial aid programs are available from both the federal government and from California state-funded programs, as well as from local institutional aid. At the federal level, the [Pell Grant](#) program is the largest program aimed at reducing disparities in access and success across socioeconomic groups; in the 2021-22 academic year, the maximum award was \$6,495. The grant is a direct-cash transfer awarded to undergraduate students with exceptional financial need. The federal government also provides low-interest loans, such as the [Perkins Loan program](#), to undergraduate and graduate students with exceptional need, and a range of [other aid programs](#) for both undergraduates and their families as well as graduate students.

In California, the state has similarly robust financial aid programs to offset the cost of tuition for low-income students, including [Cal Grants](#), student fee waivers like the [California College Promise Grant](#),¹⁴ and a range of [other programs](#) that target low- and moderate-income students. A 2019 study found that state aid in California outpaces federal Pell grant aid; the

¹⁴ The California College Promise Grant was formerly known as the Board of Governors Fee Waiver (BOG fee waiver).

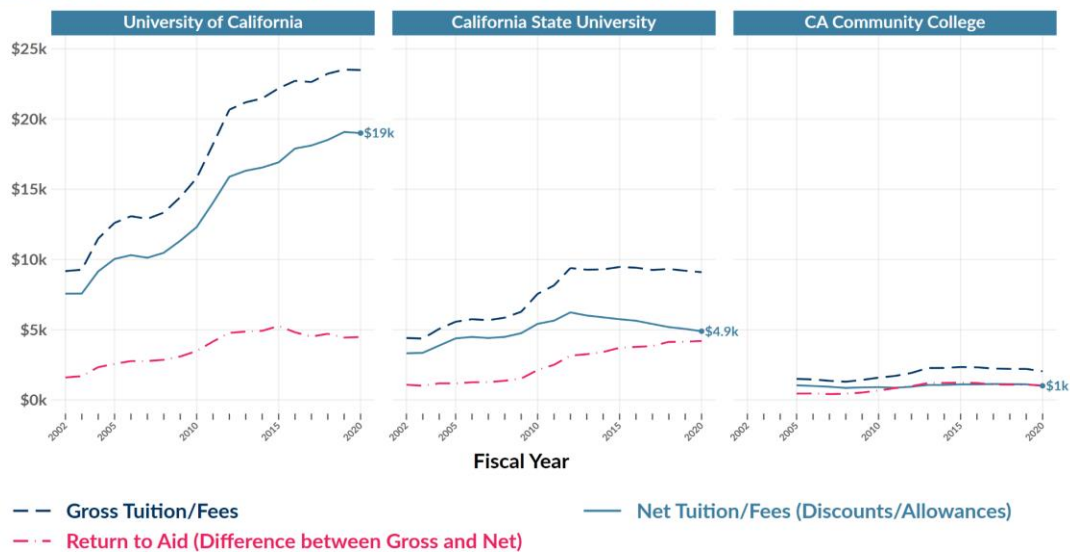
state spends more than \$4,000 per low-income student on financial aid, making California one of the country’s most generous states for student aid programs (Eaton, Kulkarni, Birgeneau, Brady, & Hout, 2019). In fact, about half of all students across the three higher education segments—especially low-income students—pay no tuition at all (Public Policy Institute of California, 2019). This plays out in the total student loan debt students take on in California versus nationally—[The Institute for College Access and Success \(TICAS\)](#) finds that the average California undergraduate takes out \$21,485 in student loans compared to the national average of \$28,950. In recent years, the California economy and state budget have been growing and state lawmakers have chosen to expand existing aid programs or in some cases created new aid programs to support students in their higher education journey. (For more information, see the Governance paper.)

Lastly, at the institution level, many colleges and universities across the state provide their own grants and scholarships (See Appendix: Governance for a full list). It has also become common practice for universities to reinvest a portion of their tuition revenue into need-based aid (also called return-to-aid), where the goal is to reduce costs for lower- and middle-income students while charging higher-income students the “sticker price” (Douglass and Lapid, 2018). As seen in Figure 7, we show how one primary revenue source—tuition—has fluctuated across three categories: gross tuition, net tuition (the amount of money that can actually fund system budgets), and return to aid (gross minus net). In 2020, among all of the public higher education systems, UC had the highest net tuition/fees at \$19k, followed by CSU at \$4.9k, and CCC at \$1k. Notably, institutional return to aid kept overall tuition and fees from being even higher (reaching the gross tuition/fees line) —at the UC and CSU systems, return to aid was about \$4.5k and \$4.2k, respectively, and \$1k at CCCs.

Figure 7

Revenue from Student Tuition

Changes in Gross Tuition/Fees, Net Tuition/Fees, and Return to Aid Per FTE (2020 Dollars)



Source: Data prior to 2019 from IPEDS, via Education Data Portal v. 0.14.0, Urban Institute, under ODC Attribution License, and post-2018 finance and FTE data from IPEDS.
 Sample: All UC’s, CSU’s, and CCC’s with available data. UCSF and UC Hastings are excluded from the UC sample.
 Notes: We further narrow the sample using listwise deletion to all schools with available tuition and FTE data, and exclude CCC data prior to FY 2005 due to a high frequency of missing observations.

Funding estimates to achieve adequate and equitable funding levels for Higher Education

Is the current level of California’s investment in higher education adequate? No estimate currently exists that costs out the price of meeting the [state’s goals](#) of access, persistence, and degree completion. However, [some advocates](#) argue that funding would be adequate if the state simply did away with student tuition and fees for all students across the three segments. Researchers from the Public Policy Institute for California estimate that it would cost the state about \$4 billion a year to eliminate tuition altogether for all three segments (Jackson & Warren, 2018). Another estimate from [Reclaim California Higher Education](#) estimated that it would cost the state \$15.25 billion in 2017-18 to fully fund projected enrollment and eliminate tuition in all three segments.

However, providing no tuition or very low tuition to all students equally provides breaks for wealthy students and families creating a ‘regressive’ system that fails to address student need (Deming, 2019). Moreover, providing free tuition does not guarantee that students will reach the [state’s goals](#) of degree attainment, nor will free tuition ensure that campuses will create higher quality education experiences to prepare students for 21st century labor market demands. While providing free tuition may not be the silver bullet some students, lawmakers, and advocates are hoping for, there are other indications that financial aid programs are a helpful step toward providing equitable and adequate funding to move students through the higher education pipeline and achieve broader goals (for research on this topic, see Deming, 2019). California has made progress on this front. The state has moved to a “means-tested” financial aid model that addresses student need using parents’ income as the means test to determine aid eligibility, targeting the majority of financial aid to low- and moderate-income students. In this sense, the higher education system is arguably not adequate but it is equitable.

Funding student financial aid – room for improvement

While financial aid programs are generous in California, there is still room for improvement on several fronts. Financial aid is not as easily available for nontraditional college students such as adult learners in continuing education programs, or for students who work and are enrolled part-time, since many financial aid programs have requirements that students not already have a bachelor’s or professional degree and enroll at least half-time.

Moreover, there are growing concerns that California’s financial aid programs fall short of covering the true cost of college. Researchers from the Public Policy Institute of California estimate that when taking into account non-tuition costs, such as housing, transportation, child care, and the cost of books and supplies, the total cost of attending one of the UCs is closer to \$32,000, with tuition and fees accounting for just 42 percent of the overall price tag (Jackson & Warren, 2018). At CSUs, they estimate the total cost to be just under \$15,000, with tuition and fees representing just a third of the total cost; and while community colleges have very low tuition, tuition is just 12 percent of total costs, which Public Policy Institute of California researchers estimate to be over \$10,000.

Lastly, financial aid will need to adapt to the 21st economy and demands from workers who want short-term training rather than formal degree programs. To ensure that all workers can afford frequent returns to higher education, state financial aid program requirements may need to adapt to students who already have a 4-year degree and take just a few classes at a time, or students who want to pursue technical education paths that do not necessarily result in a formal degree.

Yet some researchers argue that financial aid programs need to go further in addressing more than just the cost of tuition for low- and moderate-income students. It is well known that tuition is [not the only cost](#) of attending college—books and supplies, the cost of housing, transportation, and other costs are important components as well, especially in California where [costs of living](#) are skyrocketing. Jackson and Warren (2018) estimate that total cost at UCs is closer to \$32,000, with tuition and fees accounting for just 42 percent of overall cost. At CSUs, they estimate the total cost to be just under \$15,000, with tuition and fees representing just a third of the total cost. While community colleges have very low tuition, tuition is just 12 percent of total cost, which is estimated to be over \$10,000. State lawmakers may want to consider accounting for the true cost of college in order to improve the goals of access, retention and graduation.

- **New ideas:** Beyond the existing need-based grant and loan programs, policymakers and advocates have considered other new policy ideas to reduce the financial burden of college and provide more equitable access. Ideas like income driven repayment plans (Brooks, 2016; Karamcheva, Perry, & Yannelis 2020; Lacy, Conzelmann, & Smith, 2018) and income share agreements (Madonia & Smith, 2019; Salmon, 2020; Schachar, 2019) have been a part of the national and state conversation about how to make college more affordable.
- Other reform ideas have centered around how to reduce the overall cost of higher education; in California, for example, researchers have pointed out ways to reduce transfer costs between the community college system and the CSUs and UCs. Research by The Campaign for College Opportunity (2021) indicates that reducing barriers like confusing or duplicative course requirements, and therefore reducing the number of courses needed to transfer, would have saved the state over \$40 million in 2019-2020.