

Trends in Education Governance 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

This issue brief reviews major trends that may influence education governance in the years and decades to come. Specifically, we review trends in technology and education reform, a new movement taking shape in higher education for 'life-long' learners, long-term issues to consider to sustain the state's continuous improvement efforts, and ways that the market and continuous logics appear to be co-evolving together.

Technology and education reform

Advances in online learning and technology for the classroom have taken off in recent years, and California's education system has embraced these changes. The state currently has several [virtual charter](#) and [virtual public schools](#), with students across the traditional K-12 public school system enrolling in about 600,000 online courses in the 2015-16 year alone (Evergreen Education Group, 2015). The [California Department of Education](#) makes it possible for students to complete online Advanced Placement courses, A-G course requirements, and other online programs through its distance learning programs. In higher education, California's three segments have offered [online courses](#) and degree programs for several years, and the California Community College system even launched its first online college, [Calbright](#).¹ And of course, during the COVID-19 pandemic, schools and universities from across the state had no choice but to transition to online learning as state-mandated shutdowns closed school doors. These changes are happening rapidly, and arguably, the pandemic introduced new technology and online learning across all public school environments much sooner than was expected, causing schools and universities to integrate new learning tools into their classroom much more quickly than they would have otherwise planned. Below, we document two ways in which the education system is being transformed by technology.

"Unbundled classrooms" - A new movement is taking off in both K-12 and higher education to "unbundle" traditional education environments by integrating technology into the classroom to create 'customized' learning environments for students. Some advocates on the ideological right argue that this movement is the natural progression of school choice. Instead of parents and students choosing from a different set of brick-and-mortar facilities with unique organizational conditions, families no longer have to leave a traditional public school at all if the

¹ The legislature has attempted to eliminate funding and [shut down](#) Calbright several times. In general, higher education has been slow to uptake new technology. There has been pushback from faculty to integrate online learning and other technologies into the three higher education segments until the COVID-19 pandemic made online learning a necessity.

classroom itself can become customized to the students' learning needs and organizational priorities (Hess, Meeks & Manno, 2011; Hess & Manno, 2011). In a nutshell, such advocates argue that this model would move beyond school choice to *educational choice*, resulting in the unbundling of traditional education environments (for an alternative perspective of the unbundling movement in K-12, see Schneider & Berkshire, 2020).

Unbundled K-12 environments are already in motion; in California, the [Rocketship charter](#) school network has used technology in their classrooms for years to upend traditional teaching and learning formats. New York City has funded the [School of One](#) where a sophisticated algorithm leverages [adaptive learning software](#) (alongside developments in big data and artificial intelligence) to gauge a student's baseline knowledge, and then put students through a set of exercises that develop incremental learning and ultimately bring students up to proficiency on a given skillset. Other technology such as [learning analytics](#) is being used across K-12 and higher education classrooms to better understand and study how students learn, and [intelligent tutoring](#) is helping bring students up to speed with required coursework.

In the unbundled model, the state still has a role to play in setting content standards and statewide assessments for K-12 (Hess & Manno, 2011), setting degree requirements in higher education, and the state still funds such models with taxpayer dollars. However, the organizational structure of schools would drastically change. In K-12, students using computers to receive customized learning experiences--possibly with the assistance of a teacher who would track progress and analyze learning data--would replace the role of a traditional teacher at the center of a classroom delivering the same lesson to a group of students. In higher education, unbundled online classrooms could lead to universities becoming completely unbundled, where students receive college credit from multiple higher education institutions instead of a siloed learning experience at just one institution.

Disrupting the higher education system - There are technology reforms taking root across the education sector that are becoming more 'disruptive' to the overall shape and form of education (Parker, 2020), with potential to push education completely into the marketplace, outside the purview of the state. This is especially the case in higher education, where online platforms like Udemy, Coursera, and Khan Academy have made it possible for end-users to enroll in single skills-gaining courses or in some cases take a series of courses to earn industry certifications. Such platforms provide 'MOOCs'--Massive Open Online Courses--to adult learners and professionals, often at no charge to the end user. MOOCs have become a popular alternative for many as an alternative to traditional college degrees and credentialing programs that are high in cost, selective in their admissions processes, and provide an uncertain value in today's changing labor market and economy (Wellen, 2013).

State legislators in California considered using MOOCs across all public higher education segments in 2013. [SB 520](#), a bill that ultimately did not pass, proposed to grant credit to students enrolling in low-cost, online courses (including MOOCs) offered by third-party providers to address the higher education systems over-enrollment problems and to get students through lower-level courses more quickly. Whether lawmakers pick up similar legislation in the future is an open question, and one that is feasible given the continual problems the state's higher education system faces with over-enrollment. One point to

consider about disrupting the system altogether is that the state is not able to easily regulate the content or quality of courses offered by private companies; it is entirely possible that such courses would be regulated by private industry with little to no role for the state to play in defending student equity or the democratic purposes of education.

A changing role for higher education: Adult and lifelong learning

In today's rapidly changing economy, there is a new demand placed on adult learning to ensure that individuals can be successful in the evolving economy and labor market, which is being transformed by technology in the form of robotics, artificial intelligence, and automation (Brynjolffson, McAfee, & Spence, 2014). Some argue that to be successful in this new economy, students must learn how to become self-guided, life-long learners (Kell & Lubinski, 2013), which means that workers will need to continually return to postsecondary education to upskill, retrain, and reskill. However, workers may not need formal degree programs to gain the skills necessary for the 21st century economy and instead may pursue certificates, licenses, or other forms of short-term training.

Evidence of this emergent trend is already coming to light as some research has found that going to traditional four-year colleges [does not always pay](#), as course of study may become more important in the labor market than obtaining a formal bachelor's degree. Rising student tuition and fees alongside spiraling student debt create new risks for students who may not see long-term payoffs of a formal degree program, which may contribute to trends in [declining student enrollment](#) in higher education. And stark inequalities in access to traditional higher education institutions by [race/ethnicity](#) and [socioeconomic status](#) may make some students question the value of traditional higher education institutions and pathways.

Yet California's higher education institutions lack the organizational infrastructure for adult and life course education that is necessary for the 21st century economy. Several lawmakers and researchers have pointed out that the state's Master Plan, in particular, fails to meet the demands of students and has become outdated for the transformations taking place across the economy. Moreover, they argue that the design and structure of the state's higher education system impedes coordination between the three segments to meet regional workforce needs across the state (Berman et al., 2018; California Competes, 2017; Governor's Office of Planning and Research, 2018). Major organizational impediments such as transfers between the CCCs and UCs and CSUs, enrollment capacity limitations, and limited opportunities for continuing education and adult learning are restraining the state's ability to produce 21st century workers that are necessary for today's economy. Instead, private platforms like [Udemy](#) and [Coursera](#) are meeting consumer and industry demand with online coursework that allow end-users to enroll in single skills-gaining courses or in some cases earn industry certifications, which is putting the future survival of California's higher education institutions into question.

To adapt to the changes taking place, [some researchers](#) advocate for California's higher education institutions to take a 'regional' approach that works with local companies to integrate industry demands into degree programs and core curriculum while also meeting the changing career goals of students. For example, this could take the form of creating applied bachelor's degrees that allows for technical or occupational course work to count towards a BA.

Alternatively, higher education organizations could create new designs for degrees and certificates that focus on short-term training or high-tech ‘bootcamps’ that reskill workers to adapt to technological advances in a given industry or region. Higher education institutions will also likely need to expand online education opportunities to meet the demands of working adults who return to higher education for short-term course work. (For a review of many of these ideas, see Scott & Kirst [2017].)

On a positive note, the California Community College system is already working to address 21st century learning needs and has modernized its career and technical education programs and infrastructure (Ton-Quinlivan, 2019). The CCC system redesigned CTE to be more responsive to industry across different regions of the state. Twenty eight CCCs are also involved in an [UpSkill California](#) consortium that delivers employee training and workforce education at Workforce Training and Development Centers.

Sustaining continuous improvement efforts

There are clear benefits of the continuous improvement strategy in both K-12 and higher education. In K-12, after many years of sanctions-based accountability that lacked capacity building under NCLB, school districts and teachers received substantial financial investments to bolster teacher quality and improve supports to serve students’ diverse learning needs. New state investments in Transitional Kindergarten have expanded access to early childhood education, and investments in student financial aid programs and transfer pathways have opened the way for more students to earn higher education degrees. Results from these policy reforms are already taking root and the state is seeing results. In K-12, researchers have found that LCFF school spending has led to increases in high school graduation rates and academic achievement, especially among students from low-income families (Johnson & Tanner, 2018; Fan & Liang, 2020). In higher education, more students are enrolling, more are transferring, and more students are earning degrees than ever before (Public Policy Institute of California, 2019).

However, there are two major long-term concerns to consider to sustain the continuous improvement logic over time. 1) How will the state finance these efforts in the long-run? 2) How will the state maintain the infrastructure for continuous improvement when there is an ongoing teacher shortage that has worsened during the ongoing pandemic?

With significant [budget surpluses](#), the last few budget cycles reflect a commitment to the continuous improvement strategy. However, many of the recent continuous improvement investments were [one-time funded, not ongoing](#), creating concern as to whether there will be political support and the right economic conditions to fund these efforts in the future. The success of LCFF is also predicated on temporary funding--voters passed Proposition 30 (and later Proposition 55), which primarily increased the income tax on the state’s top earners, providing additional funding for schools until 2030. It is unclear how state lawmakers plan to backfill revenue once Proposition 55 expires.

On the other hand, California voters have been persistent in recent years to raise new revenue for schools. For example, in 2020, California voters [narrowly rejected](#) a ‘split roll’ of Proposition 13 that would have added billions to the state General Fund with intentions to fund

schools, community colleges, and local government by taxing commercial land owners at market-rates. The ballot initiative, Proposition 15, was rejected by narrow margins, but there is still [momentum](#) from organizers to move forward with property tax reform. Whether voters and legislators will secure new sources of stable revenue for California's education system is an open question, but one that may need to be answered for the long-term success of continuous improvement policy strategies.

The state's efforts to build sustained networks of continuous improvement learning environments are also at risk with the ongoing [teacher shortage crisis](#). Despite the importance of teachers for student learning, attracting and retaining teachers into the profession has been difficult in California, especially because of events that have jolted districts' efforts to keep and retain high quality teachers. During the peak and aftermath of the Great Recession, districts drastically cut salaries for most teachers (Bruno, 2018) and also cut tens of thousands of teaching positions that still have not been fully recovered (Darling-Hammond et al., 2018). This has contributed to an ongoing teacher shortage that is most prevalent in low-income districts with high-needs students, and across hard-to-teach subjects such as mathematics, science, special education, and bilingual education (Darling-Hammond et al., 2018), and in rural areas of the state (Goldhaber, Strunk, Brown, Naito, & Wolff, 2020).

Like a domino effect, this has led to an increase of state permits and waivers to hire teachers who are not yet fully credentialed. Findings from the [Legislative Analyst's Office](#) (2019) found that in the 2016-17 academic year, state permits and waivers were given in disproportionately high numbers to high-poverty districts and to the subject areas of special education, science and mathematics. Other events, such as the [current COVID-19 pandemic](#) and a recent [onslaught of teacher retirements](#) and resignations also impact the state's teaching shortage. Moreover, the pandemic has created a crisis in [ECE educator attrition](#) as well. Equally troubling are high teacher turnover rates in high-needs districts and the fact that fewer people are enrolling in teacher credentialing programs altogether (Carver-Thomas, Kini, & Burns, 2020; Carver-Thomas, Leung, & Burns, 2021; Carver-Thomas, Burns, Leung, & Ondrasek, 2022). Such capacity issues put into question the long-term success of the state's investment in the continuous improvement logic when the human capital necessary to support the infrastructure is in constant turnover.

Co-evolution of market and continuous improvement logics

An interesting trend is taking place in education reform, in that there are new examples of market and continuous improvement logics co-evolving together. For example, in K-12, new hybrid organizational models are developing that are somewhere between a charter management organization and traditional district that serve both charter schools and traditional public schools. Models like [New Visions for Public Schools](#) serve ten charters in the New York City area but also provide [professional development](#) services for teachers across public schools. Traditional public schools are also adapting some of the best practices coming out of charter schools, with positive effects on student achievement (Fryer, 2014).

The use of big data and longitudinal data systems—once used for market-based accountability policies—are also beginning to take form in continuous improvement policy ideas. California's recent investment in its [Cradle-to-Career data system](#) will provide K-12

educators with more real-time data to improve student learning and achievement, and help lawmakers target more nuanced resources and support to schools and districts in need. In ECE, the data system will help the state track the quality of ECE programs, enrollment, affordability, and other indicators. In higher education, big data can help with California’s transfer pathways between the three segments and course alignment necessary for transfers (for example, streamlining the transition from high school to college or the transfer process between CCCs and UCs and CSUs). New technologies developed by private industry may also help with improvement efforts across the public education system. Intelligent advising systems could serve as a stand-in for the shortage of college counselors across the higher education segments (California Governor’s Council for Postsecondary Education, 2021), and adaptive learning software like [ALEKS](#) already supplements traditional coursework at UC Berkeley to help students improve their math skills.

The degree to which market and continuous improvement logics co-evolve in the future is an open question. It is entirely possible that they do not evolve together at all due to resistant institutional cultures and a strong defense of the status quo. However, blending the logics could be a natural path forward to adapt to the changing times, and to take the best of what has been developed under the market logic umbrella while also providing education as a public good backed by the more democratic purposes of the state. For more ideas about the evolution of education policy reform, see the reports listed in Table 3 in the Appendix.