COMMUNITY COLLEGES AND THE CALIFORNIA DREAM:
ENGINES FOR INCOME MOBILITY

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Delivered to Gavin Newsom
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This Policy Analysis Exercise reflects the views of the authors and should not be viewed as representing the views of the external clients, nor those of Harvard University or any of its faculty.
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"At the end of the day, if we’re not dominantly talking about the community college system as an antidote to so many of our struggles and challenges in the state, we are missing one of the great opportunities and one of the great treasures and resources this state has."

Lt. Gov Gavin Newsom, 2017
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Executive Summary

For decades, millions of people of all races, religions, and classes have flocked West in pursuit of the "California Dream." California offered a compelling promise to its residents – not just immediate gold or riches, but a longer-term social compact that would create ladders to opportunity for their children. Politicians, business leaders, and civil society alike aspired towards a shared vision: the belief that forward-looking investments in education and research, coupled with a sense of common destiny and optimism, could open doors to a brighter future for each of the subsequent generations to come. Higher education has played a critical role in the dream. Between 1960 and 2015, the number of students enrolled in college in California increased twelve-fold – the most of any state in the nation. Simultaneously, California’s university system established a renowned reputation for its quality and groundbreaking research. Today, unemployment in California is nearing historic lows, statewide job growth is outpacing national levels, and both productivity and wages in the state trend significantly higher than the national average. We believe the California Dream can still represent a model for a diversifying America – a growing, multi-ethnic hub of innovation, prosperity, and opportunity.

However, California also epitomizes the pressing present-day challenges associated with achieving inclusive economic growth in America – increasing inequality, deindustrialization, labor market polarization, and regional disparities. The gap between the top 10% and the bottom 10% of families in California has doubled since 1980, and now stands at a factor of twelve. Middle-class wages have stagnated – inflation-adjusted median hourly wages in the state have finally recovered from the Great Recession, but have increased just 1.2% since 2006, compared to a national median increase of 2.7%.1 While unemployment appears healthy, the state’s labor force participation rate sits at a 40-year low. Prosperity and opportunity are diverging starkly across the state – per capita income in the Bay Area is almost double the levels seen in the San Joaquin Valley, Far North, and Inland Empire. And while California created 265,000 good jobs for workers without a bachelor’s degree in skilled-service industries between 1990 and 2015, those gains were outweighed by the loss of ~425,000 blue-collar good jobs in manufacturing that did not require a BA. Much of California’s seemingly impressive job growth numbers has come from low-wage, low-skill, routine positions that are vulnerable to automation and lack significant opportunities for career advancement. Minority communities have suffered disproportionately in these trends.

This paper will argue that the community college system can serve as an important policy lever to mediate these challenges and connect Californians to the good jobs of the future. Today, three out of every ten Californians ages 18-24 are currently enrolled in a California community college, and one-fifth of all community college students in America attend an institution in California. With a student body of 2.1 million and 114 campuses across the state, California’s Community College System has the scale and the reach to target precisely the Californians who have been left behind. The place-based nature of the community colleges and their tight links to the local community should allow them to both reflect and react responsively to the state’s diverse and changing talent needs. The community college system is also a relatively inexpensive investment – the revenue currently required to support one full-time student is less than half that spent at the University of California.
To date, California’s community college system has enthusiastically and successfully pursued expansion of access as the primary means to advance equity. With community college student fees representing a tiny percentage of their four-year competitors (and as of 2018, featuring free tuition for all first-year students), community colleges are serving as a crucial resource for low- and moderate-income Californians. The student body population, at 44% Hispanic, 26% White, 6% Black, 15% Asian and 8% other, also closely mirrors the state’s future demographic makeup (and contrasts starkly with the UC system). California Community College data indicates that nearly half of their students are first-generation in college and including 56% of all enrolled are female. These figures demonstrate the potential impact at hand. However, to foster shared prosperity, the system must commit to delivering better career opportunities for its students. If successful in this mission, community colleges can become California’s key bridge to economic mobility.

To better understand the role of campuses in enabling (or hindering) their students’ economic mobility, we analyzed the Equality of Opportunity Project’s Mobility Report Cards (Chetty, Friedman, Saez, Turner, and Yagan, 2017) for the individual community colleges in California, as well as the relative aggregate performance of the California Community College (CCC) System compared to the University of California (UC) and California State University (CSU) systems. The dataset allowed us to compare the earnings of California college students from 1999-2013 with their parents’ incomes, in the form of a mobility score for each school (the percentage of the student body starting in the lowest income quintile reaching the top income quintile as an adult).

Our analysis revealed a wide variation in outcomes based on this mobility measure. Notably, California holds the distinction of the #1 income mobility community college in the United States, Glendale Community College, which also ranks amongst the top 10 of all 2,200 colleges and universities in the national study. In addition, 13 of the top 30 schools in California on income mobility measures are community colleges. However, on average, community colleges in California have lower mobility scores than peers in both the UC and CSU systems. While many community colleges tended to score well on the "Access" metric (percentage of students coming from the bottom 20% of the income distribution), the “Success” metric (percentage earning in the top 20%) tended to hold back their overall mobility scores. In fact, about half of CCCs have a lower percentage of students ending up in the top 20% as adults than whose parents started in the top quintile. And somewhat alarmingly, the community colleges that performed best on mobility tended to display net declines in the share of low-income students over the study period, suggesting that fewer students may be able to access these proven pathways to advancement in the future.

Interestingly, there was no relationship in the California data between a community college’s income mobility score and its transfer rate. This observation is significant because 4-year transfer has traditionally been viewed as the primary mission and key measure of CCC success. The mobility data implies that transfer is not the only pathway to economic gains. Instead, our evidence indicates that many community college students achieving upward mobility do so by using their degrees and credentials to access high wage jobs in the labor market. To better discern how campuses are enabling (or inhibiting) their students’ connections to good jobs, we complemented our data analysis with a series of interviews with over 65 system stakeholders,
including Presidents, faculty, students, and administrators at the top-ranking mobility schools, as well as workforce intermediaries, unions, and employers.

Our interviews exposed some pervasive weaknesses in the ability of the community college campuses to effectively help students achieve income mobility through "good job" access. First, almost across the board, "career" is not viewed as the primary responsibility or mission of community college administrations, faculty or boards. Programs and incentives are structured to reward enrollment, time-to-completion, degree and certificate attainment, and transfer (rather than job placement or wages). The colleges' leadership and priorities reflect these goals. Second, career services and counseling are lackluster or, in many cases, completely absent. Where it exists, career advising is often small-scale, driven by individual faculty, and limited to students enrolled in specific Career & Technical Education programs (which only serve 11% of students statewide). No clear single-entry points exist for motivated students to find career guidance or job and internship listings.

Second, the system is not set up in a way that enables it to leverage its scale, which limits the overall ability of the community college system to move the maximum number of low-income students up the ladder. California's community colleges tend to view themselves as largely autonomous entities, rather than actors in a broader economic development ecosystem, or, as truly integrated partners with their peer institutions across the state. Schools are often competing with each other to gain enrollment for funding, to create new programs, or to serve employer needs. It also means they often fail to share or communicate information about local labor demand and gaps across the state with other institutions in the system. Where collaboration does exist, it often focuses exclusively on regional labor market needs, to the detriment of a more holistic statewide view. While the current system has the benefit of enabling experimentation and adaptability, it struggles to scale up effective programs and policies.

Our qualitative research also revealed that potential synergies between community college student talent and the private sector remain largely untapped. Many California employers indicated acute talent needs in middle-skill occupations and appetite for increased diversity of their recruitment pipelines (particularly multi-lingual employees) that could be met by the community college system. However, most expressed frustration about the lack of clear entry points on campuses and out-of-date or irrelevant curriculum. While interviews confirmed some successful existing partnerships with local employers, the lack of coordination within and across campuses means that the most effective employment pipelines remain campus-specific and faculty-centered, with limited potential to scale.

Before exploring new policies, we should acknowledge that the CCC system has already made important strides. In particular, the Guided Pathways Reform holds significant potential to align campuses towards better career outcomes. The $200M investment in Strong Workforce has also spurred a much-needed expansion and improvement of career and technical training across the system. We encourage Lieutenant Governor Newsom to support Guided Pathways and Career and Technical Training (CTE) investments through programs like Strong Workforce, and provide each the necessary funding, encouragement, and time needed to succeed.
However, given the challenges and opportunities, there exists enormous potential that high-level attention and action from Sacramento could help support a more responsive and adaptive system and catalyze better employment outcomes. The recommendations that follow provide an actionable blueprint to enable California and its regions to better leverage their campuses as economic assets and help residents scale the income ladder.

For community colleges to realize their full income mobility potential, outcomes after school must become a key mission. This means a renewed focus on career, for all students. CCCs must be incentivized to embrace work-based learning at a systems level. Working in one’s field of study during school adds 37% to wages of workers with a postsecondary vocational certificate. By providing a mechanism for regional or statewide community college internship and apprenticeship programs, the state can send a strong message that career outcomes should be a campus priority. Local unions and Chambers of Commerce in California have proven to be effective intermediaries between campuses and employers in the past. State funding, coordination, and publicity (following the model of Mayoral Summer Youth Employment programs) could help bring these individual programs to scale. In addition, campuses must be encouraged to provide more formalized support during the career and internship search, including dedicated funding to hire more career counselors and internship coordinators, and a simplified statewide procedure for students to receive course credit for work in their field of study.

If mobility is a state-wide priority, Sacramento must also pay more attention to the external factors enabling or hindering low-income student success. The state can play a large role in facilitating the integration of CCCs with other public services that are critical to CCC student success. Community college students, by virtue of their lower family incomes, are more likely to encounter food insecurity, lack of transportation access, mental health, addiction and trauma, and childcare needs. State funding for wraparound service provision and support for co-location of state agencies could serve as a powerful tool to support these goals. One particular example is the America’s Jobs Centers, funded by the Department of Labor, which provide job-seekers with services ranging from interview workshops and business attire to information about unemployment benefits. All the Governor’s appointees to the statewide Workforce Investment Board should be encouraged to prioritize integration with the community college system when awarding WIOA (Workforce Innovation and Opportunity Act) funding to local intermediaries. Better linkages to support services can both enhance the likelihood that students stay enrolled and graduate, and also help financially-challenged students improve completion of internships and work opportunities in their field of study during school.

Third, the state can encourage the private sector to more actively participate in improving community college outcomes. In particular, carefully-designed tax incentives can spark more political and economic interest in the community college system and its students. States like South Carolina have successfully rolled out tax credits that boosted community college hiring, and encouraged middle-skill employers to seek out community colleges to meet their talent needs. The Obama Administration’s 2015 proposal, which included criteria to reward businesses that participate in curriculum development and donate funds for instruction, equipment, or internships in fast-growing industries, can serve as a good foundational model for California. Such a program
could be especially impactful for small businesses in some of the state’s most economically depressed regions.

Fourth, the CCC system should act as a unified talent aggregator. Community colleges often hear they need to tailor their programs to the needs of the local economy. But the reality we heard on the ground was that in some regions, there are not enough good jobs being generated to match the supply of workers with degrees, while in other regions, key industries are facing acute shortages. By mandating (or rewarding) campuses that share their local job opportunities through the CCC-specific portal to CalJOBS (the statewide job board), the community colleges can both help inform their students of better wage opportunities in other regions that they are qualified for, and foster much-needed geographic mobility in the state.

Finally, the funding model for CCCs is outdated and in need of reform. The state’s current mechanism, which allocates funds primarily on the number of enrolled students, is not designed to reward and invest in the schools that are best serving their students. Governor Brown’s recent funding proposal to institute performance funding around student access and success is a move in the right direction. However, we fear that “completion” is the wrong success metric, and could instead lead campuses to re-emphasize low-cost programs that have proven poor performance in the labor market. Instead, we encourage California to build on the formula pursued in the Strong Workforce Program and include employment and wage metrics in incentive funding for all campuses, not just Career and Technical Education programs (along the line of the models in Indiana, Tennessee and Ohio). By incentivizing campuses to use data and evidence to direct the development and delivery of their offerings, CCCs will be better able to help their students boost their earnings, attain a living wage, and/or secure a job in their field of study. Since enrollment has been declining in the current strong labor market, campuses are more open than in the past to behavior change if it means new sources of revenue. Therefore, timing is crucial to seize the present opportunity.
I. Introduction

"Through the turmoil of change, and sometimes chaos, Californians have pressed on toward the good society—not for the few, not for the many, but for all...We are here to prove that a civilization which can create a machine to fulfill a job can create a job to fulfill a man. The world now looks to California as a beachhead on the future, with all the future’s promises—and perils."

- Governor Edmund Brown, 1963 Inaugural Address

Over the last 100 plus years of growth, California’s model for shared prosperity has often been viewed as a prototype for the country as a whole. Millions of people, from all races, religions, and classes, flocked to the state in pursuit of the "California Dream." These new residents were drawn west not just by the flash of gold or riches, but by the promise of a longer-term ladder to better lives for their children. Capitalizing on this boom, the state sped ahead to lead the nation in education, innovation and opportunity. A unique sense of shared purpose and optimism was built amongst business, public officials, and citizens that enabled institutions to look forward into the future and invest in the subsequent generations to come. In the words of University of Southern California sociologist Manuel Pastor:

Not unlike the American dream, California’s iteration focused on the limitless possibilities awaiting anyone who moved to the state. It was the state’s basic philosophic footing, a social compact that connected generations, geographies and economic classes in a common destiny.²

At its best, the California Dream has represented a bright future for a diversifying America – a fast-growing, multi-ethnic hub of innovation, prosperity, and inclusiveness. However, like the American Dream, the California Dream generated an eventual backlash. After tumultuous decades of tax cuts, public spending reductions, and racial tensions, California has regained its footing as a state that embraces diversity, welcomes immigrants, and strives for openness. But in many ways, the state also epitomizes America’s biggest challenges of the day – declining absolute mobility, increasing inequality, deindustrialization, labor market polarization, and regional disparities. Large questions still remain if California will be able to actualize the Dream for its next generation of residents.

We will argue that the community college system can serve as an important lever to mediate these pressing challenges. In fulling tapping in to its community colleges, California has the “opportunity to show the nation how to get this right and invest in our future and our collective dreams rather
than shortchange them.” The stakes are high, but the opportunity is massive: if successful, community colleges can become our key bridge to economic mobility.

The California Dream

Measured alone, the California economy rivals the United Kingdom as the fifth-largest in the world. California’s GDP grew $42.3 billion during the first three quarters of 2016. That figure almost outstrips the next two fastest-growing states, New York and Florida, combined. California boasts the largest labor force and working-age population in the nation (19 million and 31 million respectively). California also benefits from a diverse, multilingual, and relatively young workforce – more than half of all Californians are non-white and more than one-quarter live in a household where Spanish is the predominant language spoken at home. California also remains an attractive destination for domestic and international talent of all backgrounds seeking new opportunities. In 2015, 17.8% of California residents had been born in another state and 27.2% had been born abroad - about twice the national average and amongst the highest levels in the country.

In many ways, California’s economic outlook projects a view that the California Dream is on track. In March 2017, the unemployment rate in the state hit a record low of 4.4% and statewide job growth is outpacing national levels. California’s average weekly wages are 19% higher than national averages. And in the midst of an overall productivity slowdown in the United States, five out of the country’s top ten metro areas measured by labor productivity are located in California.

California has coupled its demographic advantages with a commitment to education as a pathway to the California Dream. Between 1960 and 2015, the number of students enrolled in college in California increased twelve-fold – the most of any state in the nation. The groundbreaking policy enabled the state to simultaneously develop a university system with a renowned reputation for its quality and groundbreaking research, while also promoting equity and access through large aid programs and tuition subsidies. Today, out of all 27 commuting zones in America with over two million residents, California cities rank in the top four spots in terms of rates of college attendance.

And yet, recent research reveals some causes for concerns about whether California can deliver on the dream for its next generation of residents. Like other Americans, many Californians express doubts about their future economic prospects. In recent polling, a plurality of 18-29 year olds in California stated that they thought their generation would be worse off than their parents.

Echoing trends in America more broadly, middle-class wage stagnation is a persistent and increasingly pressing problem in California. While inflation-adjusted median hourly wages in the state have finally recovered from the Great Recession, they have increased just 1.2% since 2006, compared to a national median increase of 2.7%. Over the same period, annual wages for the top 10% of the income distribution in the state have increased almost 10 times as much (11.7%), indicating that middle-income earners are being left behind in much of the state’s growth. Despite a decline topline unemployment number, in 2017, the state’s labor force participation rate...
hit a 40-year low, with high school graduates the least likely to be working.\textsuperscript{17} With fewer perceived stable opportunities for lower-skill workers, many are choosing to drop out of the workforce entirely.

\textbf{Inequality has also become an increasingly salient issue in the state.} From the late 1920s to the 1970s, the top 10\% of Californians held between 30\% and 35\% of the wealth. This period coincided with a massive expansion in California's economy, its population, and as mentioned previously, its higher education system. Like the rest of the nation, this trend reversed course in the late 1970s, and California saw earners in the top 10\% controlling an increasing amount of the wealth in the state.\textsuperscript{18} By 2014, the wealth gap between the top 10\% and the bottom 10\% of families in California had doubled since 1980, now sitting at a factor of about 12.\textsuperscript{19} In terms of wages, a worker in 2014 at the 90th percentile made $2.60 for every dollar the median worker made (compared to $1.87 in 1979).\textsuperscript{20}

\textbf{The significant regional differences in California are driving divergent opportunities at a scale incomprehensible to many other U.S. states.} Though the Bay Area comprises only 17\% of the state's total population, it produces 27\% of total output. Per capita GDP in the Bay stands at $93,599, far outpacing the average American earner, and Greater Los Angeles and San Diego come in at $59,940 and $66,850 respectively. In San Joaquin Valley, however, per capita GDP sits at just $36,586 and the remainder of non-major metro areas have a per capita GDP of just $32,586.\textsuperscript{21} County-level unemployment rates in California in January 2018 ranged from 18.5\% in Colusa County in the North to 2.4\% in San Mateo in the Bay Area.\textsuperscript{22} Clearly, this means that children growing up in distinct parts of the state also experience differing perceptions of future possibilities.

\textbf{Employment opportunities in California are growing increasingly bifurcated by education and language.} Between 1991 and 2015, California lost 423,700 blue-collar "good jobs" in manufacturing that do not require a bachelor's degree.\textsuperscript{23} Many of the new jobs being created in the state are low-wage, low-skill, highly-routine positions that are vulnerable to automation and without significant opportunities for career advancement. In addition, barriers remain for integrating recent immigrants into the labor force – of the approximately 10 million Californians for whom Spanish is the predominant language spoken at home, almost half of these reported that they spoke English less than "very well."\textsuperscript{24}

\textbf{At the exact time when California could have used human capital as a path back to shared prosperity, funding for higher education began a steady decline.} Higher education's proportion of spending from the state general fund has fallen from 18\% in 1977 to 12\% in 2017,\textsuperscript{ii} slowly eroding the historical legacy of one of California's key competitive advantages.\textsuperscript{25} Tuition for UCs and CSUs is at an all-time high.\textsuperscript{26} These general funding trend coincided with a population

\footnotesize{\textsuperscript{i} "Good jobs" are referred to in this paper utilizing the definition from the Good Jobs Project at Georgetown University's Center for Education and the Workforce. They describe a good job as full-time work paying at least $35,000 annually ($17/hr) for those under age 45, and $45,000 ($22/hr) for those 45 and older. In California, median earnings for a non-BA worker with a good job were $59,000 annually in 2015.  
\textsuperscript{ii} The overall trend from the 1970s to today masks a precipitous funding drop during the Recession, and more recent increases as California's economy has recovered.}
explosion and twelve-fold increase in the college going population, forcing colleges and universities to educate more students with fewer public dollars.

**California in the 21st century can recapture the dream.** Most Californians agree that postsecondary education is critical to that mission. In 2017 statewide survey data, 80% of residents answered that the state’s higher education system was "very important" to the "quality of life and economic vitality of the state over the next 20 years." The state can recommit to forward-looking investments that connect education to the jobs of the future and return the state to shared prosperity. California’s Community College system sits at a crucial junction to doing so.

**Community Colleges: A Bridge to the California Dream**

**California has the largest community college system in the United States.** Its network of 114 community colleges campuses touch every corner of the state, educating over 2.1M students annually, or one-fifth of all students enrolled in public two-year colleges nationally. Three out of every ten Californians ages 18–24 are currently enrolled in a community college. Importantly, the community college system also serves the largest number of students and the largest share of low-income students in the state’s higher education infrastructure.

**The vast scale of community colleges in California makes them a formidable force in the economy.** The massive number of residents interfacing with the system means that the potential economic impact of reforms could be immense. The system’s student body is equivalent to 10% of the state’s prime-age labor force, so even small improvements can lead to big results. For instance, the system’s SalarySurfer tool shows that students who graduate with associate’s degrees in CTE receive salaries that are 71% higher than their peers with General Education degrees five years after graduation ($66,000 compared to $38,500). Just an additional 10% of students deciding to shift their field of study could generate returns in the millions.

**Few institutions in the state are given as much flexibility and autonomy to meet the changing needs of California's diverse and heterogeneous regions as the community college system.** The functional independence of community college districts can make it difficult to quickly roll out large systemic reforms. But the place-based nature of community colleges is also a major advantage in that tight links to the local community should allow them to both reflect and react responsively to their area’s changing needs. With over 4,500 associate degree and 8,000 professional certificate programs, when calibrated correctly to regional demand, the community colleges can be a critical source of talent to fuel growth across the state.

**Associate’s degree and postsecondary certificate workers will be a critical part of determining whether California can successfully transition to an inclusive information age economy.** Over the same period that California lost a significant share of good wage employment in manufacturing, it has gained good jobs for non-BA holders in non-manufacturing blue-collar industries, as well as skilled service sectors. According to Georgetown's Center on Education and the Workforce, California has experienced a 110% increase in good jobs for workers without a BA in skilled-service...
industries. This equals 265,000 new jobs, with the largest proportions in health services, information, financial activities, and real estate.\textsuperscript{30}

The community college system can have a transformational impact for these workers on the margin. While prospects for workers with just a high school degree appear fairly bleak, associate's degree holders have captured a healthy share of recent good job growth.\textsuperscript{31} The unemployment rate for Californians with some college or an associate's is 2.7% lower than residents with just a high school degree.\textsuperscript{32} In prior decades, many might have been able to pivot directly from high school into a good job. The path to a good job in California without a BA remains viable, but some postsecondary education and training will increasingly be necessary to access the middle class.
Paper Outline

This report consists of six substantive sections. Following this Introduction, this first chapter will briefly present our methodology and describe our sources of quantitative and qualitative data. Section Two will provide a larger theoretical overview of the existing literature on community colleges, the relationship between campuses and employment, income mobility, and the history of higher education. Building off this background, Section Three zooms into the California higher education system in particular, surveying the history of the Master Plan for California, and summarizing past performance of the community colleges. This information sets the context to understand the underlying purpose and rationale behind this policy engagement with the Office of the Lieutenant Governor.

Section Four examines the relationship between California community colleges and intergenerational income mobility. We will provide an overview of our analysis of the Equality of Opportunity Project’s Mobility Scorecards and explain how California’s community colleges fare on income mobility metrics, compared to sister institutions in the California system. Section Five then presents a set of case studies based on our visits to four high mobility community colleges in California. It highlights interviews with system stakeholders, including college presidents, students, faculty, unions, and nearby employers.

Finally, in Section Six, we step back to provide a set of recommendations for the Lieutenant Governor, highlighting areas where high-level attention could help support a more responsive and adaptive system, while catalyzing better employment outcomes. In light of the evidence collected, we aim to present an actionable blueprint that will enable more campuses to help their students scale the income ladder and paint a clear vision for the role that community colleges and the private sector can play simultaneously in tapping California’s demographic advantages and transitioning the state economy towards the skilled service good jobs of the future.
Methodology

Our PAE employed a mixed methods approach in the form of a nested research design. We used quantitative data to guide selection of regional case studies in the state, and then conducted qualitative interviews with over 65 stakeholders to complement our statistical analysis.

Our primary source of quantitative data comes from the Equality of Opportunity Project’s Mobility Report Cards. This dataset measures intergenerational income mobility at each college in the United States, drawing on administrative data from over 30 million college students from 1999-2013. As the paper on Mobility Report Cards describes, the team:

Construct[ed] publicly available mobility report cards – statistics on students’ earnings outcomes and their parents’ incomes – for each college in America. We use de-identified data from federal income tax returns and the Department of Education to obtain information on college attendance, students’ earnings in their early thirties, and their parents’ household incomes. In our baseline analysis, we focus on children born between 1980 and 1982 – the oldest children whom we can reliably link to parents – and assign children to colleges based on the college they attend most between the ages of 19 and 22.

We paired the Equality of Opportunity data with a mix of publicly-available datasets, including the Integrated Postsecondary Education Data System (IPEDS) data from the National Center for Education Statistics, and the California Community College System’s Data Mart, managed by the Chancellor’s Office. We used this initial set of data matching and analysis to identify 4 case study campuses in the state. For California’s community colleges, the Equality of Opportunity project reports statistics at the district level. We matched individual campuses to their reported district score to allow for campus level analysis. We will typically focus on individual campuses, even though some of the mobility scores actually represent the entire district.

The case studies were intended to help us deepen our understanding of two questions: (1) First, what are the unique needs of low-income students that high-mobility community colleges serve? (2) Second, what spectrum of relationships exist between the private sector and community colleges to help students find employment opportunities? In the process, we hoped to identify common themes highlighting effective ways that community college campuses are preparing and transitioning students for good jobs in the workforce, and other ways in which they fall short. We conducted qualitative interviews with stakeholders in our case study regions, including community college presidents, faculty, deans, administrators, union leaders, local businesses, employment intermediaries, and students. The interviews helped us to hone in on obstacles that might be hindering responsiveness to labor demand, and factors that are enabling or inhibiting access to good jobs.

Finally, to complement our case study work, we conducted interviews with a number of key academics and policy experts, equipped with relevant experience to help us refine our policy recommendations for California. Through these discussions with academics, economic
development practitioners, think tanks, and national non-profits, we hoped to better understand how California’s community colleges fit into a broader economic strategy for middle-class growth, as well as the national landscape on community college reform.
II. Literature Review: Community Colleges as a Vehicle for Shared Prosperity

“Can we be equal and excellent, too?”

- John Gardner, 1961

California Native


The Role of Community Colleges in America

At the turn of the twentieth century, the universal high school movement in America converted the United States into the world’s most educated country. As economists Claudia Goldin and Lawrence Katz documented in their book *The Race Between Education and Technology*, Americans’ public investment in mass education spawned an unprecedented number of high school graduates who went on to power the U.S. economy into the most prosperous times the country had ever seen.\(^{34}\) Importantly, the increase in the supply of educated workers also had distributional effects – it meant that “the wage premium that came with a diploma was now spread among a larger group of workers.”\(^{35}\)

Community colleges began to emerge during this era as a key step on the path towards an increasingly more educated population. Following World War II, the 1947 Truman Commission Report *Higher Education for American Democracy* endorsed the widespread expansion of community colleges as a means to help double the college-going population at a time when the United States sought to capitalize on its position in the global economy and strengthen democracy at home and abroad. For the first time, an American President endorsed “the extension of free public education through the first 2 years of college for all youth who can profit from such education.”\(^{36}\) The Commission also raised new questions about equity and opportunity on the national stage and promoted a growing role for government in “provid[ing] financial assistance to help level the playing field for access.”\(^{37}\) Community colleges experienced exponential growth in the post-war period – the number of two-year campuses nation-wide doubled between 1950 and 1970.\(^{38}\)

The expansion of community colleges reflects America’s historical focus on formal college education, rather than on-the-job training. The federal government spends only $8B on worker training, compared to the combined spend of $500B by families and government on education.\(^{39}\) Unlike in countries like Germany, where 60% of young people are enrolled in employer-supported apprenticeships, only 5% of young people in the U.S. participate in apprenticeship programs,
where they have the opportunity to simultaneously earn while they learn. Employer investments in training are typically reserved for full-time workers, leaving publicly-funded community colleges with the task of preparing young workers to enter careers in vocational fields.

Beginning in the 1960s, however, community colleges began to encounter strategic questions related to this dual mission. Community colleges often juggle competing objectives – the traditional role of the “junior college,” which focuses on academic coursework for transfer to four-year institutions, and the occupational training mission, which emphasizes skills development to meet local industry demand. Distinct funding streams and stakeholder groups emerged to support these two different missions. The subsequent “functional overlap” has spurred a fundamental debate about the community college’s purpose in the higher education system – should they continue to promote transfer, or “should they differentiate themselves from 4-year institutions by focusing on terminal vocational training to prepare students for workforce entry?” This debate continues on today, and California’s institutions, as the largest community college system in the country, sit at the center of it.

In 2018, 2-year community colleges represent the largest share of the United States higher education system. Community colleges are the destination of entry to post-secondary education for almost half of all college entrants nationally and a disproportionate share of low-income students. Of the total share of all students who finished a degree at a four-year institution in 2015–16, 49% had enrolled at a two-year college in the previous 10 years. It seems critical, then, that for higher education in America to truly manifest as a pathway to shared prosperity, we must begin with our community colleges.
The Relationship between Income Mobility and Higher Education

The American conception of meritocracy is premised on the idea that those who work hard will be able to ascend the economic ladder. The education system has traditionally been viewed as a critical foundation of that meritocratic ideal. In the words of Brookings Senior Fellow Richard Reeves:

No other nation has turned upward mobility into a civic religion. And education has been central to that ethos, allowing us to reconcile our individualism with our egalitarian commitments. Rather than an elite drawn from a hereditary caste, social mobility ensures a ‘natural aristocracy’ based on talent. Horace Mann has a famous line about education as ‘the great equalizer … the balance-wheel of the social machinery.’ Educational institutions, especially colleges, act as the upward escalators. 44

Building on this historical narrative, then, the higher education system should not solely be viewed in terms of the quality of educational product it delivers to students. It should also be judged on the basis of its societal role as an enabler of economic advancement. Our project will examine California’s community colleges in this light.

Over the past five years, the U.S. has experienced a dramatic increase in data and knowledge about income mobility, in large part thanks to the efforts of the cross-university Equality of Opportunity Project (EOP), financed by the Gates Foundation, the Arnold Foundation, the Russell Sage Foundation and several others. Economists Raj Chetty, Nathaniel Hendren, and John Friedman lead a team that uses big data to “identify new pathways to upward mobility.” 45 Provided with access to de-identified IRS records, these researchers have released a groundbreaking series of papers demonstrating the relative lack of income mobility in the United States compared to other developed countries. By combining administrative tax data with Census records, they were able to compare the earnings of American children to those of their parents at the same age. The numbers show that absolute mobility in America today is not just relatively low compared to Europe and Canada, but also, has been declining relative to the World War II generation. Whereas 95% of sons born in the United States in 1940 made more money than their fathers, the same was true for only 41% of sons born in 1984.46

In 2017, the team at EOP honed in on the role of America’s higher education system in encouraging (or inhibiting) economic mobility. Past research from Pew’s Economic Mobility Project (EMP) had shown that a college degree quadrupled the chances that an individual born into the bottom income quintile will reach the top quintile in adulthood. 47 Building on this premise, the EOP team constructed a set of individual “mobility report cards” for over 2,200 colleges and universities in America, with a score that coupled students’ earnings with their parents’ incomes to express the school’s mobility performance.

Much of the popular news coverage of the paper and research has focused on highlighting elite universities’ relative lack of access for low-income students compared to their high-income peers. For instance, the data showed some troubling parental income numbers for schools like Harvard and UC Berkeley, starkly indicating that they are serving students disproportionately coming from
the top of the income distribution. Indeed, it appears that elite institutions still have a lot of work to do when it comes to increasing the representation and opportunities for residents from low-income families.

However, digging deeper into the national data, community colleges shine through as a powerful storyline in the research, emerging as potentially the most potent “engines of upward mobility.” As the authors note, even though these schools are not highly selective, they can induce significant mobility “by producing large returns for students from low-income families.” In fact, out of all the school types highlighted in the research, community colleges are associated with the highest share of upward mobility success stories nationwide (measured by the percentage of children in the top 20% with parents in the bottom 20%) at almost four times the scale of selective private or highly selective private schools, and twenty times the scale of Ivy-Plus institutions (the Ivy League plus Chicago, Duke, MIT and Stanford). While the research indicates that on the micro-level, any particular individual might be better served by attending a more selective institution (without consideration of price and debt burden), from a societal perspective, community colleges and other highly accessible public colleges are the primary institutions delivering upward mobility at scale.

This is an especially timely moment to be thinking about the connection between college and opportunity. Recent research is displaying troubling trend lines about the diverging pathways between college and non-college educated workers. Autor found that the earnings gap between college and high school graduates has roughly doubled in the U.S. since 1980. Goldin and Katz have attributed about 60 to 70% of the rise in the dispersion of U.S. wages between 1980 and 2005 to the increase in the education wage premium. This divergence is having profound implications on the life chances and outcomes for low-income children. Students raised in less-educated households are both less likely to enter college and less likely to complete. One of the most striking comparisons highlighted by Chetty and colleagues was that six out of every ten 25-year-olds raised in families in the top fifth of the income distribution (about $120,000 or more annually today) have a bachelor’s degree, compared with a third of those in the middle 40%, and just one in ten from the bottom 40%. These numbers point directly to the importance of community colleges in helping to close our opportunity divide in America.

Why are community colleges important for fostering economic mobility?

Community colleges are the most accessible path to increased educational attainment in the United States. Nationally, community colleges are reaching the “hardest to serve” students in America across a number of dimensions. Their students are older (44% are 25 or older, double the rate of four-year schools), and more likely to be parents, working, or in need of remedial classes. They also tend to come from lower rungs of the income distribution—only 33% of two-year students’ parents had a BA or higher (compared to 54% of four-year college students), and 67% of all community colleges students come from households earning below $50,000. Two-year institutions also are more likely to serve minority students—36% of two-year public college students are black or Hispanic, compared to 24% at public four-year institutions. Among students
with an A average in high school, 30% of African-American and Hispanic students attend community college, compared to 22% of white students.\textsuperscript{56}

One explanation for the differing demographics of two-year and four-year students is the consistently lower price for education at a community college. In 2015-16, the national average for tuition and required fees for a two-year public institution was $3,038 compared to $8,778 at a public four-year institution. At private four-year schools this jumps to $27,951.\textsuperscript{57} Since 1980, tuition and fees at public four-year colleges and universities have grown \textit{19 times faster} than the median family income, increasing the appeal of community colleges to more and more students from lower-income brackets.\textsuperscript{58}

Underlying the premise that community college attendance can foster income mobility is the assumption that community colleges can affect wage outcomes. Research has found that individuals with community college certificates and associate’s degrees are significantly more likely to be employed, and command higher wages than peers with just high school degrees. Estimates range, however, a meta-analysis of national studies found associate’s degree graduates have 22\% higher lifetime earnings than on-time high school graduates who do not attend college, and certificate holders have earnings 13\% higher.\textsuperscript{59} The Obama Administration’s 2016 College Promise report documents that community college completers make an average of $10,000 more a year than those with just a high school diploma.\textsuperscript{60}

Community college also yields payoffs for communities that have historically received lower wages in the workplace, specifically African-American and Hispanic males.\textsuperscript{61} For instance, Kolesnikova and Shimek found that black men holding associates degrees made 25\% more than those with just high school degrees and Hispanic men made 27\% more than counterparts with a high school degree (compared to gains of 18\% for white males).\textsuperscript{62} Wage gains are also particularly significant in the context of the status of minority groups given that more than half of Hispanic students and nearly half of black students enrolling in college for the first time begin at a two-year public institution (compared to just 35.6\% of whites).\textsuperscript{63}

However, two variables appear critical in understanding the potential impact of community colleges on wages. The first is whether attendees of community college actually complete a program and obtain a credential. While earlier data from the 1970s cohort showed students with “some college” experiencing an economic payoff, more recent national studies suggest that this may no longer be the case, especially for workers under age 30.\textsuperscript{64} Surveying a number of longitudinal studies on community colleges, the William T. Grant Foundations “New Forgotten Half” (2015) report concluded that students who start community college programs but do not complete them are not more likely to be employed; nor are they likely to earn more in their lifetimes than had they not attended college at all.\textsuperscript{65} This is especially troubling if we consider that fewer than four in every ten students who enter a community college nationally complete any type of degree or credential.\textsuperscript{66} Limiting the interminable loop of remedial classes and rewarding campuses that help students persist, then, are both important intermediary steps towards realizing income mobility.
Second, it is important to note that not all community college programs yield the same returns. In fact, there appears to be significant variation in employment outcomes across different certificate programs and fields of study, even within individual campuses, and while controlling for local wage levels. Most studies have found high degree of variation in returns both (a) across fields within states and certificate levels and (b) across levels and states within fields. And as Carnevale et al. (2015) note, programs at different campuses are "often the same in name only" since programs and majors have "different values at different institutions" depending on the "alignment between particular curricula and regional labor market demand, as well as on differences in program quality." 67

Working in a field of study during community college can also impact wage levels. In Redesigning America’s Community Colleges (2015) Bailey et. al demonstrate that work experience related to one’s major is especially impactful on career outcomes for programs with direct ties to occupations, such as STEM fields, healthcare, and applied sciences.68 Georgetown's Center for Education and Workforce found that working in one’s field of study while enrolled added 37% to wages of workers with a postsecondary vocational certificate.69 Students who completed apprenticeships were found to earn $300,000 more over their lifetime.70 Literature has also found internships to be associated with better career outcomes and a higher likelihood of securing a job upon graduation.71

Finally, it is important to acknowledge that wages are not the only relevant measure to consider when studying the relationship between community colleges and good jobs. First, there are a number of examples of occupations in which short-term wage returns from a program or certification do not correlate with long-term earnings potential. Second, broader indicators of job quality can also matter tremendously in determining personal satisfaction, societal contribution, and psychological and physical health. For instance, Rosenbaum (2016) found that community colleges also confer non-monetary rewards in the labor market. Students who attained certificates and associate’s degrees were more likely to find jobs related to their desired future careers and to experience job autonomy, status and satisfaction than peers with just a high school degree. In addition, AA degree-holders reported lower rates of strenuous work, night shifts, and better working conditions. Finally, the study found that job benefits for AA graduates are "generally on par with bachelor's degree holders" – these workers are much more likely to hold jobs that offer vacation, health, and retirement benefits than workers without a college credential.72

The relationship between colleges and lifetime economic outcomes will likely become even more relevant in the future given structural changes in the economy that are making a college education the most prominent line of income demarcation. In a 2016 study, Georgetown’s Center on Education and the Workforce found that 11.5 million of the 11.6 million jobs created in the recovery from the Great Recession went to workers with at least some college education. Associate’s degree holders gained 3.1 million jobs since January 2010, compared to just 80,000 for those with a high school degree. Since 1989, the number of jobs for workers with an Associate’s degree or some college has increased by 47%, from 30 million to 43.5 million, compared to a 7.3 million net job decline for workers with just a high school degree or less.73 These trends indicate
that higher education credentials are increasingly required to share in America's prosperity trajectory.
III. Community Colleges and Income Mobility in California

“...It was the first time in the history of any state in the United States, or any nation in the world, where such a commitment was made -- that a state or a nation would promise there would be a place ready for every high school graduate or person otherwise qualified.”

– Clark Kerr 1999

Former President of the University of California System

Historical Background

California’s shared prosperity model was historically premised on a belief that investing in the state’s young people would serve as a catalyst and driver for broad-scale economic growth. Under this framework, high levels of funding for quality public schools, coupled with a world-class university system, would be one of the state’s strategic advantages, inducing generation after generation of Americans and foreigners alike to move to California.

In 1960, California introduced its visionary Master Plan for Higher Education, led by then-UC President Clark Kerr. The plan was developed to accommodate the rising tide of the children of the Baby Boom generation, and envisioned a high-quality and affordable higher education system accessible to all Californians. The Plan included admissions goals for each tier, with the top 12.5% of graduating high school students eligible to attend the University of California, the top 33.3% eligible to attend the California State University, and all persons above the age of 18 able to attend a California Community College. The original Master Plan also highlighted the need to invest public dollars in education to spur economic growth, and to provide financial aid for those who could not afford the already subsidized tuition rates. As described by Marshall Steinbaum, “the Master Plan set out to make educational advancement solely a matter of individual proficiency, not family background or ability to pay.”

At the time of the Master Plan’s passage, only 203,000 Californians of college age matriculated full-time to a higher education institution. While this still far outpaced national averages in 1960, higher education has expanded almost exponentially since. Today, there are over 2.8 million students enrolled in the UC, California State University and California Community College systems. This represents a seven-fold increase in full-time equivalent students from 1960 levels – the most among all states in the nation. Community colleges led the way in this expansion, experiencing a 10x growth in enrollment, and opening 50 new campuses across the state.

California’s community college system is one of the oldest in the United States and predates the Master Plan by multiple decades. Enacted with a distinctly local focus, the system emerged in the early 1900s, when towns across California recognized the need to provide continuing education for their high school graduates despite being geographically removed from larger universities.
The first community colleges started as offshoots of local high schools, and prepared graduates to work in nearby industries. The 1917 Ballard Act and 1921 District Junior College Law established control of Community Colleges by the local electorate while simultaneously allowing for state-level public funding. Community Colleges expanded across the state during the 20th century, seeing a large influx of students as a result of the Servicemen’s Readjustment Act of 1944, otherwise known as the G.I. Bill. By the time the 1960 Master Plan was adopted, Community Colleges had formalized their role in the post-secondary, simultaneously responsible for vocational training, adult education, remedial education, and as a transfer path to 4-year universities.

California Community Colleges Today

The size and scope of California’s Community College System is unmatched. With 2.1M students, over 75% of Californians pursuing a college education are enrolled in a community college. It is the largest college system in the U.S. and the second largest college system in the world. The California Community College system is 10 times larger than the UC students (~250K students) and 5 times the size of the California State University system (~450K students). The 114 community college campuses touch every corner of the state and allow communities far from UCs and CSUs to pursue post-secondary education.

California Community Colleges represent the demographic future of California. Today, the White and Hispanic population in California are roughly equal (~39%). However, because the Hispanic population is much younger than the White residents, California is expected to become more Hispanic in the coming decades. The demographic mix of California Community Colleges better reflects the future population of the state, where 44% of students are Hispanic (the CSU system also has similar demographics). This contrast is especially stark when comparing Community
Colleges to the UC system. Only 24% of students attending UC are Hispanic. In addition to being ethnically diverse, CCC students are also fairly likely to be the first in their families to attend college – in 2016, 42% of CCC students were first-generation college students. CCC students also tend older than their UC and CSU peers – only about one-quarter of CCC students enter directly from high school, while another one-quarter are between the ages of 25 to 30, and 16% are over the age of 40.

### State and College System Demographics

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**CCC offer a wide variety of diverse pathways towards a credential.** The community colleges list approximately 8,000 certificate programs and 4,500 associate degree programs state-wide. The wide availability of both certificates and associate's degrees, while vast and at times overly complex, gives students many options to complete educational programs that suit their needs. In many fields, a certificate may provide the training required for a promotion, whereas other fields may demand an associate's degree. The variety of pathways tends to be particularly attractive to non-traditional students, many of whom are older, part-time or parents, and have assessed that they do not have the time or resources to pursue a 4-year degree.

**Simultaneously, California Community Colleges also provide a springboard to a bachelor’s degree.** In 2016, 18% of UC students and 36% of CSU students began their education at a community college. Public 4-year universities in California rely on community colleges as a pipeline for students, and the relationships between the systems provide a low-cost and flexible defined pathway to a bachelor's degree. For students who do choose to pursue a bachelor's degree, starting at a Community College can be a low-cost and flexible way to complete their necessary credits. In 2010, California passed SB 1440, the Student Transfer Achievement Reform (STAR) Act, with the goal of increasing the number of Associate's Degree for Transfers. These reforms are
expected to further streamline the Transfer pathway to ensure bachelor's degrees are accessible for community college students.

The California Community College System has made recent moves towards increasing pathways for students to enter Career & Technical Education (CTE). Most notably, the Strong Workforce program passed with $200M of state funding in 2016. The program's aim for CTE is "more and better" – enroll "more" students in CTE programs that lead to good jobs and create "better" CTE programs of higher-quality that lead to employment and higher wages. Strong Workforce funding is notable in its orientation towards outcomes and the large allocation earmarked for regional collaboration (40% of the overall funding). The state also invested $6M in a marketing campaign to rebrand and raise awareness for CTE programs. Finally, the CTE function of the CCC system has also supported an apprenticeship model since 1970, financed by Montoya Funds. The CCC apprenticeship programs grew to an appropriation of $29M in 2016.

Indeed, many of California's recent investments in Career and Technical Education programs appear to be paying off for the state and the students. According to the system’s CTE Outcomes Survey, CTE students (including both completers and skills-builders) in California in 2016 saw wage gains of over 38%, representing a steady year-on-year increase. About two-thirds of the credentials offered in CTE fields are short-term, reflecting a shift from the traditional AA and transfer mindset. However, CTE concentrators still represent only 11% of overall enrollment.

California recently opted in to promote Guided Pathways, a national movement that aims to create a more student-centered educational experience. Guided Pathways provides a compelling framework to transition community colleges away from the traditional "cafeteria model" where students are “left to navigate often complex and ill-defined pathways mostly on their own.” Under the cafeteria approach, the community college structure is often confusing for students, making it difficult to efficiently identify a field of study, understand the courses needed for a credential, access counseling services and eventually complete their educational goal. In contrast, Guided Pathways organizes courses around "meta-majors" to encourage some focus early-on but allow enough flexibility for students to work towards several different outcomes simultaneously. It couples clearer paths towards transfer or a credential along with increased advising to ensure students stay on track. California launched its own pilot program in 2017 with 20 community colleges, all of which are expected to implement Guided Pathways by 2019.

In concert with these two large initiatives, California has made important strides in improving its data systems and metrics tracking to reflect a broader set of gals. Most relevant for the purpose of this project, the Chancellor’s Office's "SalarySurfer" data system has enabled campuses to begin tracking and measuring the wage outcomes of particular programs, with the help of unemployment insurance data from the Employment Development Department (EDD). As part of the Strong Workforce program, the state is starting to highlight and reward programs that deliver 50% or more increases in student earnings; 70% or more of students earning a living wage; or 90% or more of students employed in their field of study. From the student side, the LaunchBoard
system supplies labor market information, some transfer and employment information, as well as course offerings. In addition, California has opened seven community college “Centers of Excellence” across the state which are grant-funded technical assistance providers responsible for providing actionable regional workforce data tools and reports to inform the colleges’ offerings.  

**Funding Patterns for Higher Education in California**

California was one of the highest spenders on higher education in the country up through the 1970s. For instance, in 1977, 18% of the general fund was allocated to the UCs, CSUs and CCs (compared to 12% in 2017). However, California saw a steady decline in funding for higher education following the passage of Proposition 13 in 1978. The ballot initiative capped property taxes and required a super majority to pass tax increases. Proposition 13 had the most dramatic impact on 4-year universities, with UC funding declining by ~60% on a per student basis, and CSU funding decreasing by ~45%.  

Compared to UCs and CSUs, the community colleges have been somewhat more insulated from the drastic funding declines following the passage of Proposition 98. The law created a minimum allocation for K-14 education, which set aside a pool of money that CCs alone could benefit from out of the higher education system. Today, community colleges capture nearly 60% of the higher education budget, however with 5 times more students than the UC and CSU combined, this figure can be misleading.  

Observing funding on a per-student basis tells a different story, indicating that community colleges are provided relatively fewer resources to serve students. California Community Colleges receive roughly half the allocation of UC students before tuition payments ($10K per student for UC vs. $5K for CCCs). Because UC and CSU students also contribute more in tuition, the money available for instruction is considerably higher at UCs and CSUs. Given their mission of access, community college are unable to mimic the tuition requirements of 4-year schools (nor should they be encouraged to). However, this means that increased levels in per-student funding in the future would likely need to come directly from the state. The public appears broadly supportive of such an approach – 87% of Californians support state funding for the Cal Grants, 62% of Californians say the current level of state funding for public higher education is not enough, and only one in five favor an increase in student fees.  

California’s community colleges are the most affordable in the country. Within California, CCCs are also the lowest cost public option; CCC tuition is about $1,400 for a full load, compared to ~$5,500 at CSU and ~$12,000 at UC. Indeed, this seems to be a major factor explaining why students choose to attend CCCs. A November 2017 PPIC Statewide Survey found that 57% of adults think affordability is a big problem at UC and CSU, and 72% stated that the price of higher education keeps students who are qualified and motivated from enrolling. Starting in year 2019, California College Promise program will make the first year free for community college students.
The promise program builds on the nearly $800M allocated towards tuition relief via Board of Governors waivers.\textsuperscript{102}

During the Great Recession, all of California's higher education institutions saw a large decline in state budgetary support, including the community colleges. The California Public Policy Institute found that the budget cuts following the '08-'09 Recession were unprecedented in the state's history, totaling more than $1.5 billion (in constant 2011 dollars) from 2007 to 2012. The 2013-14 budget represented a 30 year low in state funding for 4-year colleges in California.\textsuperscript{103} Community colleges were especially hard-pressed to respond to these changes—community college enrollment tends to be counter-cyclical, so the number of students interested in taking classes increased dramatically. Community colleges were forced to cut course offerings and turn many students away.

However, like the state budget more broadly, community colleges have seen their overall funding levels recover as the economy has rebounded. By 2016-2017, community college funding levels had risen to $5.2B. This stands in notable contrast to other states in the U.S. On average, since the economic recovery began in 2010, most state funding for higher education decreased by 2%. Other large states saw double digit declines, such as Pennsylvania (-22%) and Texas (-19%), whereas California saw a 15% increase, leading the nation by a significant margin.\textsuperscript{104}
Understanding California Community College Outcomes

Nowhere in the world was higher education practiced on a larger scale and with more original thought and far-reaching innovation than in the fast-growing state of California, which had moved to the front rank of American development.  

-Simon Marginson,

The Dream is Over: The Crisis of Clark Kerr’s California Idea of Higher Education

Our paper sheds light on important question for policy-makers in California – how should we define community college success? While the mobility scores described in later detail provide one (new) lens to understand performance, scholars and researchers have studied other outcomes and measures in the state community college system. In the sections below, we summarize some themes that have emerged from the California literature to help better understand and contextualize community college success. While we advocate for a broadened scope of mission that includes mobility and economic opportunity as critical goals, it is clear that the community college system also balances a number of other key metrics and objectives.

Traditionally, many community colleges in America have been judged on transfer performance. California is no different, and the legislature regularly monitors and reports transfer performance. California’s community college 6-year transfer rate is near the average across all U.S. states, and is in the top 10 for Transfer-out bachelors completion rates (the rate at which community college students graduate once arriving to a 4-year school). Hidden in these results are stark differences across income levels. In California, students from high-income backgrounds who transfer complete a bachelor’s at almost 20% higher rates than low-income students. The 6-year transfer rate also hides the difficulty presented to students hoping to transfer quickly, as the transfer rate in California is only “4% after two years of enrollment, 25% after four years of enrollment.” The state is trying simplify the transfer pathway and has introduced “Associate Degrees for Transfer” as a way to further streamline the path to a 4-year degree. Still, UCs and CSUs are unlikely to expand capacity significantly. The state must continue to improve outcomes for the large fraction students for whom transfer is not a viable option.

“Completion” has been traditionally conceived as a second key metric important for understanding a college’s success. On this measure, CCCs have traditionally looked weak compared to UCs and CSUs. Six-year completion rates in the CCC system overall have essentially
held steady over the last ten years – dipping slightly from 49% in 2006 to 47% in 2016. The CTE completion rate sits slightly higher, at 50% in 2016. In comparison, the six-year graduation rate in 2015–2016 at UC was 85% and 57% at CSU. However, completion metrics are beginning to be re-assessed to adjust to a new understanding of community college performance. Rather than holding community colleges hostage to metrics designed for four-year institutions, measures should be more consistent with the population that community colleges serve. For instance, in October, the U.S. Department of Education released a revised set of graduation and transfer data that used eight-year completion rates instead of six years, included part-time and returning students, and refined measures to understand how many transferred before graduation and how many were still in college. The net result was an additional 1.5 million community college students now captured in the graduation rate, and additional 550,000 transfers who were previously missing from the numbers. California may want to consider revisiting its metrics tracking in light of these findings.

**Given that many students enroll in college to access better earnings opportunities, it is important that we also examine wage performance as an indicator of college effectiveness.** Census data for California confirms that bachelors’ degree holders have the highest wages in the state. However, post-secondary education means higher median earnings, even without a four-year degree. While wages were highest for bachelors’ degree holders, according to the 2016 ACS 1-year estimates, yearly earnings for California residents 25 years and older with “some college” or an associate’s degree were $6,760 higher than those with just a high school degree or equivalent, and a full $15,430 higher than those with less than a high school degree. California Statewide Workforce Strategic Plan also emphasizes that prime-age Californians who have enrolled and completed associate’s programs are significantly more likely to be participating in the workforce than those with just a high school diploma or below.

**California-specific studies have also confirmed direct payoffs to community college education in the state.** For instance, Bahr (2014) found significant increases to student earnings associated with completing a community college credential. His paper calculated average gains in California of 7% for earning an associate’s degree, 17% for long-term certificates, 13% for short-term certificates, and 11% boost for low-credit awards, respectively. Kurlander and Grosz found "quite substantial, and generally statistically significant, returns to a wide variety of CTE certificates and degrees offered in California community colleges” with average returns of up to 45% for associate degrees and 14% for shorter-term certificates.

**However, Bahr and other studies also emphasize that different community college programs in California yield different returns.** While Bahr found that average gains were strong, the outcomes ranged from 106% income gains in health occupations, to 14% losses in some core liberal arts fields. Overall, the CTE fields showed much stronger income increases, while the returns to associate’s degrees in the ten non-career and technical education fields were either negative or did not differ significantly from zero. In a 2015 NBER paper, Stevens et al. also found much higher returns to health vocational programs in California (both AAs and certificates) than other fields of study.
Like in the rest of the country, college education is one of the most important indicators of earnings in California. However, a four-year degree in California is not the only proven pathway to a good job. Georgetown researchers found that there are currently 3.4M jobs in the state that do not require a bachelor’s degree and pay at least $55K per year. Median earnings for non-BA Californians with good jobs were $59,000 plus benefits.117
IV. Mobility Report Cards and the California Community College System

Chetty, Friedman, Saez, Turner, and Yagan utilize U.S. tax returns as a way to understand income mobility through the lens of college attendance. The EOP team leveraged access to administrative data to connect students’ college choices, parental income, and incomes as adults. IRS data from 1996 to 2014 was used to identify income levels and Form 1098-T data, which covers 95% of US students, was used to match a student to a college. Mobility scores and headline statistics utilized the 1980-82 birth cohorts.\textsuperscript{118}

Each college in the nation received a "Mobility Report Card." The headline metric for each college is an overall "mobility rate," defined as the fraction of a college's students who come from the bottom income quintile (families making $25K or less) and end up in the top income quintile as adults (individual incomes above $58K). Report cards also showed the fraction of students who came from each income quintile, and the success of those students. Success for a student was defined as achieving an income in the top quintile of US earners between the ages of 32 and 34.\textsuperscript{iii}

Comparing California’s public colleges to the national dataset, the state systems in California appear quite favorably. The chart below compares the average mobility score for each tier of the California system to the average for several other groups: Ivy-Plus schools, all 4-year publics, the top 270 schools, the US national average, and 4-year privates. Overall, all three of California’s public systems display higher average levels of mobility than any peer set.

\textsuperscript{iii} It is worth noting that the EOP's mobility rate is just one way to measure college success. It is symbolically powerful in that the metric rewards colleges that educate a large percentage of low-income students. It quickly and simply factors both inputs and outputs. Many have argued justifiably that there are other ways to measure income mobility and college performance. However, in order to maintain consistency and easily compare colleges, this report relies heavily on the EOP's mobility rate definition but acknowledges there are other useful ways to measure the impact colleges have on intergenerational income mobility.
The mobility score cards show high degrees of access within the community college system, especially relative to CSUs and UCs. The chart below uses the 1981 birth cohort to show the fraction of students enrolled in a given system from each income quintile, where Q1 shows students with families earning falling in the bottom 20% of earners, Q2 showing earners between 20% and 40%, etc. A college that was perfectly accessible would have equal number students form each income quintile. Only the Community College system comes close to replicating perfect access (Q1 is just below 20% at 17% and Q5 is just above 20% at 22%). In contrast, UC took only 10% of its students from the bottom income quintile and took 48% of its students from the top income quintile. In short, CCCs appear to represent all Californians, whereas UCs are disproportionately serving the wealthiest Californians.
However, while the CCC system is the most inclusive in terms of the starting economic status of students served, it lags behind the four-year public institutions on the average outcomes of the students by age 34. While community colleges excel on the access metric, they are far behind in terms of "success," or the fraction of students from a given quintile that reach the top 20% in adulthood. As a system, the success rate for students coming from the bottom quintile for California Community Colleges is 16%, whereas CSU’s success rate is 33% and UC is 50%. All of the UCs and all but 5 of the CSUs out perform community colleges in terms of success.
Considerable variation exists on mobility scores amongst the community colleges in CA. Glendale Community College places as the highest performing community college, not just in California, but also in the United States. Among the top 30 public college campuses in California, 14 are community colleges. However, not all community colleges perform well. 32 community colleges have mobility scores at or below the national average. The lowest performing school, Las Positas College, has a mobility score of 0.8, a full 6 points below Glendale Community College. The range of mobility scores show the wide differences in the performance of individual campuses. A number of the top mobility schools in the state are clustered in the Los Angeles areas, as shown on the map in Appendix 1.

On net, in spite of their lower scores, the community colleges in California are responsible for the largest share of all income mobility "success stories" in the state. Mobility rates show shares of students moving from the bottom to the top, but the metric alone does not reflect the relative size of an institution in terms of students. The chart below shows the share of "success stories," or absolute number of students who moved from the bottom to top income levels from California’s public institutions. Out of the 7,400 total success stories in California’s 1981 birth cohort, community colleges are responsible for 54%. Clearly, given the lower average mobility scores of the system, the "success stories" reflect the broad scale of the community college system. But absent an (unexpectedly) large expansion of the UC or CSU system, these numbers imply that CCs
will continue to serve as the largest source of upward mobility in aggregate for California’s higher education system in the future.

To fully interpret the mobility data in California, it is important to note that many former community college students are captured in the UC and CSU numbers. The Equality of Opportunity project defined a student’s college as the institution they most attended between ages 19-22. In many cases, a student may have started at a CCC but spent more time at a UC or CSU during that time period. Given that 36% of CSU students and 18% of UC students transferred from a California community college in 2017, then, the mobility scores would likely appear significantly lower for the UCs and CSUs if only examining students who enter directly from high school. In fact, when looking just at completers, over half of CSU’s graduates and one third of UC graduates started at a CCC. Many of the low-income students that are represented in the UCs and CSUs “access” score are products of the community college system. It therefore appears that CCCs play an important role in driving income mobility for the other institutions of higher education in California.

Many of the most highly mobile community college campuses have seen their share of low-income students decline over the period of the Equality of Opportunity Project data. For instance, between the 1980 and 1991 birth cohorts, Glendale Community College saw an 11.1% decline in its share of students coming from the bottom 40% of the income distribution. Many other highly-mobile schools in the Bay Area and Los Angeles have also seen net declines in low-income student representation. One explanation we heard in our qualitative interviews is that housing prices are driving out low-income families from the areas where higher wage jobs exist. In addition, some of the highest mobility schools like Glendale and Imperial Valley had experienced an initial influx of immigrants from a particular ethnic group. Stakeholders speculated that as the economic
fortunes of these groups improved from the first generation to the second, the pool of low-income students in the area available for the CCC to enroll has shrunk.

Still, these trends are troubling in that they indicate that some of the most successful community college pathways to income gains are becoming less accessible to low-income students over time. It serves as a reminder that if the state decides to move towards a system of rewarding performance measures, they should be careful to include measures that will reward campuses that continue to serve students from the bottom of the income distribution.

Throughout our research, we scanned for quantitative metrics that might help us understand the differing income mobility rates of community college campuses, and therefore guide our qualitative research questions. We regressed campus-level performance data from IPEDS to the Equality of Opportunity data and examined metrics that might positively correlate to mobility, including completion rates, STEM completion, transfer rates, the percentage of low-income students and student-faculty ratios. The results of these bivariate regressions are included in Appendix 3. Perhaps not surprisingly, campuses with more minority students tended to have higher mobility rates, as the schools with large shares of minority students also had a large percentage of low-income students. However, other metrics that might be expected to correlate with income mobility did not. For example, as STEM completion rates increased, there was a decrease in campus-level mobility rates. The same is true for 2-year transfer rates and faculty-student ratios – as both metrics increase, mobility rates decrease. The inverse relationship between transfer and mobility is particularly interesting given that many colleges assume that transfer is the best pathway to increased student earnings.
Similar to the national EOP study, our paper does "not identify the casual effects on student outcomes." While our quantitative analysis lacks the explanatory power that a more comprehensive multivariate regression model might provide (by controlling for environmental factors), the lack of obviously compelling quantitative relationships reaffirmed our initial inclination to employ qualitative methods. Instead, we sought to capitalize on the research questions generated by the high mobility schools. What are these campuses doing to enable students to access opportunity and what can we learn from them? In this vein, in our next section we respond to the call of the EOP team to look at the "colleges that deserve further study as potential engines of mobility."
V. Campus Case Studies: What Does a High Mobility Community College Look Like?

As part of our qualitative research, we visited four “high mobility” CCC campuses to better understand the tactics and strategies colleges employ to serve low-income residents and help connect students to good jobs. On site and in the surrounding communities, we interviewed stakeholders ranging from Chamber of Commerce officials, to CTE Deans, faculty, student leaders, alumni, and local politicians. The following case studies highlight both the diversity of the populations that community colleges in California serve, and the differing approaches that campuses and leaders have employed to connect low-income students to economic opportunity.

Glendale Community College

“Glendale is a family. Our President created a culture that fosters community. So people take care of each other here. There is a glue that holds this campus together. If people feel like they are connected to the place, they’re going to feel invested in it, because they know they are part of the fabric of the college.”

-Michael Ritterbrown, Vice President of Instructional Services, Glendale Community College

Glendale’s mobility report card
(1980-82 birth cohorts)

% of Students

Glendale Mobility Rate: 7.1%
Avg US Community College Mobility Rate: 1.7%

Success (line) = % from each quintile ending in top 20%

Access = % of students in bottom 20%

Parent Income Quintile
In the Equality of Opportunity Project public reports, Glendale Community College (GCC) is highlighted not just as the #1 income mobility community college in California, but also the top community college nationally. Glendale has nearly double the percentage of students who end up in the top quintile of the income distribution than whose parents started there. Anecdotally, in interviews with faculty, Glendale’s President, administrators, and local businesses, stakeholders consistently reinforced that the campus has a strong culture and sense of community. Faculty retention is fairly high – many staff stay for 20+ years. For over two decades, Glendale was led by a charismatic leader, President John Davitt, who built a “family-first” atmosphere for students and staff, while guiding the campus with a strong focus on enabling transfer. The paragraphs below describe some notable initiatives.

**Integration with the Community**

For most of the time series in the dataset, Glendale had one of the earliest and largest non-credit programs in the state, even at a time when these courses weren’t funded at par to degree-granting programs. Because the college served a sizable immigrant community in its surrounding district, the school was effectively able to attract very large numbers of residents to take non-credit courses like ESL, citizenship classes, and basic business skills. Through this outreach, the college was able to bring many low-income community members onto their campus. The non-credit offerings acted as a funnel to enrollment in the degree and certificate programs and helped the campus to diversify and provide more access across the income distribution. This approach endures today. At Glendale’s Child Development Center, parents can take classes on parenting skills, and at its Garfield/Verdugo campus, the school is able to offer short-term skills enhancement classes to employees of local businesses. The administration continues to strategize on how to use these community-facing outlets to improve the recruitment funnel, with the goal of bringing more community members to the main campus to work towards a formal degree or certification.

**Student Support Models**

Glendale is near the median in terms of per-student revenue in the state but has chosen to spend its budget strategically, with a lower percentage of management and administrative costs, and more of a focus on faculty and student services. As stated by a top Glendale administrator, “We know that intrusive counseling can make a huge difference.” This approach has enabled them to provide attention for students through small groups that eliminate departmental silos and enable students to help and support one another through their shared challenges. One particular program the campus has championed is a 35-40 student cohort of “learning communities” for targeted groups, such as Latino students (“La Comunidad”) and foster youth (“Guardians”), that receive dedicated staff support and are required to meet with a counselor at least three times a semester. The “cohort” model is one that has proven successful across the state as a way to “critically foster students’ sense of connection, direction, community, and motivation.” Glendale has also rolled out a Summer Bridge Program, designed for 150-200 students, to help acclimate new entrants transitioning directly from high school, provide an overview of the services available on campus, and introduce first-generation students to the expectations for college life.
Changing Demographics, Changing Approach

As a tight-knit generation of immigrants in Glendale have come of age and become acclimated to life in the United States, the economic profile of the area has changed, and median incomes and housing values have risen. The changing nature of the community reflects in the declining percentages of students from the bottom 40% of the income distribution enrolling at GCC over the time of the study (from ~55% to ~45%). However, the college has been determined to continue its mission of serving low-income students. One way that they have sought to replenish some of their ranks is by recruiting students from outside the district boundaries, mostly from LA County. Today, 55% of all GCC students came from outside the district boundaries and 40% are first-generation college students.123 Indeed, many of the students that we spoke to in Glendale were commuting to the college from far-away neighborhoods, in part because of the college's reputation for quality and because it has more of a true "campus" physical environment. In spite of this changing student population, the school has worked to ensure it maintains strong relations with its host community. For instance, the City of Glendale recently reinforced its enthusiastic support for the college in a $325M bond vote to enhance college facilities – the measure passed with a resounding 73% "yes" vote.124
Imperial Valley College

"We are the fastest-growing county in California. We have to take advantage of our biggest assets - energy, land, and housing. This means we need to be forward-looking, not backward-looking, and invest in our people too."

- Local Official

**Imperial Valley Community College’s mobility report card**
*(1980-82 birth cohorts)*

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<thead>
<tr>
<th>Parent Income Quintile</th>
<th>Access (%)</th>
<th>Success (%)</th>
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<tbody>
<tr>
<td>1</td>
<td>17%</td>
<td>36%</td>
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<tr>
<td>2</td>
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<td>5</td>
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Imperial Valley College (IVC) ranks as the #2 income mobility community college in California, with a mobility rate of 4.8%. Located in the Southeast corner of the state, the college is surrounded by rural desert and farmland on the border with Mexicali, Mexico. IVC’s student body of 8,000 is approximately 90% Latino, and almost 60% of its enrolled students are first generation college students. For many local residents, the college has served as an accessible entry point to family sustaining wages in occupations such as nursing and teaching. Speaking with stakeholders in the region, we heard many stories about children of agricultural laborers, who used the local college as the first step on a ladder to upward mobility.

Imperial County has the highest expected job growth rate in the state, but it also has one of the highest unemployment rates in the nation. This points to one of the major challenges for the college – the supply of good jobs in Imperial Valley is still limited, and wages are amongst the lowest in the state, impacted by labor competition from neighboring Mexico. However, since the county does not have its own UC, CSU, or private four-year institution, the public two-year community college, IVC, plays a critical role in the region’s economic success. It is essentially the
only direct source of postsecondary talent, although San Diego State University has a small Imperial Valley campus that serves approximately 900 students each year and many employers also look to four-year institutions across the border in Mexicali, Mexico. This has come with a set of advantages and disadvantages: it means that businesses must engage with the college out of necessity, but it also means the college must attempt to supply local talent for a wide range of at-times competing regional economic priorities (ranging from state funded agencies to meeting the needs of large new employers planning to enter solar energy in the County). The paragraphs below describe some notable initiatives.

**Linkages with Local Institutions**

The Imperial Valley Economic Development Corporation (IVEDC) is tightly linked to IVC and intimately familiar with its programs, faculty, and administrators. IVEDC serves in a clear intermediary role to facilitate interactions between the business community in Imperial County and the college. While still imperfect, this funnel enables the college to better understand and serve the needs of an otherwise largely deconcentrated market – for instance, according to a labor market analysis on advanced manufacturing in Imperial County, more than 70% of respondents identified themselves as small businesses with 50 or fewer employees. Clear communication with the college has enabled IVC to begin scaling up programs to try to meet expressed employer needs in areas such as welding, electric technology, renewable energy, and building construction technology.

**Student Services to Meet Student Needs**

Over 19% of all families in Imperial County live below the poverty line, and nearly 40% of IVC students come from families in the bottom 20% of the U.S. income distribution. This has necessitated that the school simultaneously prioritize the non-academic needs of students. For instance, IVC has recently opened a food pantry on campus and the college hosts an oversubscribed childcare center for students' children through its child development major. The school also invests heavily in ESL offerings to serve the large proportion of English language learners and offers a free winter bridge program for students transitioning from ESL classes to English classes.

Enrollment management has been prioritized as a way to accommodate low-income students on campus, many of whom need to work simultaneously while enrolled. According to an administrator, the campus is working to schedule more classes at times that are "student-friendly, not faculty-friendly" so that students can work during the day and attend school at night. This is especially important during downturns, when adult learners may return to school to upgrade their skills but have to take on any work they can find during the day – during the Great Recession, the number of evening students increased over 50%. As a next step, the campus is collaborating with the Department of Transportation to try to introduce a new transit shuttle or alter existing bus schedules to better facilitate transportation to campus for students without cars. Discounted rates are available on current Imperial Valley Transit routes for enrolled IVC students.

**Fast Tracking to Good Jobs**
Over 60% of IVC students self-identify as CTE majors, outpacing state averages. In addition, only 42.8% of students expressed their desire to transfer to a four-year college after IVC, far below state averages. This means that it is especially critical for the campus to provide clear pathways into jobs straight from IVC. Recognizing this reality, the school has undertaken a number of new initiatives to help students complete CTE programs more quickly, and to encourage enrollment in fields with high demand in the labor market. These new “fast tracks” in CTE allow students to complete programs like a welding certification that typically took two years in just eleven months, therefore requiring a much shorter period of time away from the workforce.

The school has also tried to support earning while learning. Amongst the most successful programs at IVC are the school’s eleven apprenticeship partnerships with the Imperial Irrigation District (IID) that aim to supply the “new generation of journeymen in electrical trades” in Imperial County. IVC is the educational provider for all of IID’s apprenticeships, in which students couple eight courses (32 credits) at IVC with 8,000 hours of on-the-job training over the course of four years. IID covers the full cost of the students’ education. For those who complete the programs, the new hires can make upwards of $80,000 within four years of employment.

Overall, CTE in Imperial Valley appears to provide a proven path to better wage outcomes. CTE students in Imperial Valley saw earnings gains of over 58% after taking classes compared to the prior earnings. The average hourly wages of these students, sitting at $20.43, far outpace local median hourly wages of $14.42.
In Los Angeles County, nearly one-third of residents are immigrants, almost half of the labor force is foreign-born, and close to two-thirds of those under 18 are the children of immigrants. The over 100,000 LA Community College students mirror this demographic reality. 85% of Los Angeles Community College District students are students of color; 43% are first generation college students; 58% are Latino; and 52% live at or below the poverty line. The district also has a veteran student population numbering in the thousands, over 11,000 undocumented students, and nearly a third of its students are ages 30 and older.

LA’s Community Colleges function as a unified district with nine individual campuses, led by Chancellor Francisco Rodriguez. Unfortunately, the Equality of Opportunity Project data does not break down the schools’ income data by campus, but the district overall ranks as fifth in the state on income mobility and is the best-performing amongst California’s large city districts. We highlight the findings from two campuses that we believe well represent the diversity of the district in terms of population and CTE/liberal arts focus, and which feature notable initiatives around good job access.
Los Angeles Trade-Technical College

"Our vision is that this campus is where you come to get the good jobs in LA. We also see it as our responsibility to make sure that those good jobs come to South LA."

-Lawrence B. Frank
President, LA Trade Tech

Los Angeles Trade-Technical College (LA Trade Tech), located in South Los Angeles, is surrounded by one of the highest concentrated poverty neighborhoods in the state. 47% of the residents in the surrounding neighborhood live in poverty, 94% of residents are people of color, and 17% of local residents are undocumented. Larry Frank, LA Trade Tech’s President, has deep ties to civic leaders in Los Angeles and served as LA’s Deputy Mayor before moving to LA Trade Tech. The campus has a number of programs targeting hard-to-serve populations, including formally incarcerated individuals. LA Trade Tech is uniquely focused on job placement, with a historical emphasis on vocational training rather than transfer pathways. Trade Tech was also recently able to tap into a local residential development project to secure a health center on their campus that can serve students. The paragraphs below describe some notable initiatives.

Integration with Workforce System

One of the signature initiatives of President Frank was to place a federally-funded America’s Jobs Center (one-stop work source center) directly on the Trade Tech Campus. The Center serves a dual purpose. First, it provides employment support services to current and graduating students, ranging from computers to scan job boards, to a clothing closet stocked with business attire that can be borrowed for interviews, to full-service employment counselors. In addition, however, the center also helps bring prospective job-seekers from the surrounding community onto the college campus. LA Trade Tech believes this co-location model has been key to their recent success.

Union Partnerships

LA Trade Tech has recently scaled up its partnerships with local unions to develop up-to-date curriculum and ensure students in CTE programs have a clear pathway to apprenticeships and union jobs. Union input helps ensure that LA Trade Tech’s certificate programs meet the quality demands of the industry, and that graduates will have a pathway into the union upon graduation.

One partnership with the LA County Federation of Labor includes a 12-week boot camp to prepare formerly incarcerated South LA residents for jobs in the construction trades. The college helps provide wraparound services including soft skills training and counseling. After completion of the pre-apprenticeship program, there are parallel tracks to then launch the individual into a union apprenticeship. The program eventually envisions serving 500 individuals, and the first pilot of 80 people had an 85% placement rate. Once on the union path, these workers can expect wages of $22/hour plus benefits.
From the union's perspective, leaders see the college as an important way to bring new, diverse representation into their pipeline. As one union official described it, "We are cognizant that we don't have as many entry points as we would like to recruit in highly disadvantaged areas. LA Trade Tech and other community colleges can give us that access. We know how to do the technical training, but we've realized that the community college can then play a big role in taking individuals that have never been exposed to a particular industry before in their social networks, and help them develop the soft skills needed to enter and succeed in the industry."

South LA Promise Zone

LA Trade Tech, under President Frank's leadership, served as the lead agency in South LA's application to become an officially designated "Promise Zone," which was accepted by the U.S. Department of Housing and Urban Development in 2016. Their selection has made the neighborhoods of Vernon-Central, South Park, Florence, Exposition Park, Vermont Square, Leimert Park, and Baldwin Hills/Crenshaw eligible for shared technical assistance and increased federal funding. The campus leads a coalition of over 50 community partners, including LA Unified School District, UCLA, Cal State Dominguez Hills and the University of Southern California, and local non-profits to apply for grant applications to bring investment to the area. The Promise Zone designation has helped South LA mobilize and focus resources around a "good jobs" agenda – the mission of the zone is to "Revitalize South Los Angeles by moving residents to economic opportunities" through "sustained resident engagement" and "public, private and non-profit partner involvement." Explicit goals include moving 10,000 residents into living wage jobs, increasing local hires through LA's "Train to Place" city hiring initiative and other pre-civil service sector opportunities, and building and strengthening sector pathways in construction, hospitality/culinary, transportation, and health. The Promise Zone model highlights the centrality of the community college campus to broader economic and community development goals, and the potential to use the physical campus as a launch board for coordinated, inter-agency and cross-sector revitalization initiatives.
Los Angeles City College (LACC)

"Two things are the most important things to instill in our students – the opportunity to fail, and a sense of belonging. Once our students feeling empowered and feel that they’re part of something – they can do anything."

-Dr. Adriene "Alex" Davis
Dean, Office of Economic Development and Workforce Education

Los Angeles City College (LACC) is located in East Hollywood and serves a study body that roughly mirrors the median demographic profile of CCCs in the state. Over 60 languages are spoken on campus, and the student body is approximately half Hispanic. Compared to our other case study schools, LACC represents more of the typical portrait of a traditional community college. The college sources its student body heavily from surrounding public high schools in the neighborhood, and has a long history in the city dating back to the 1920s. Transfer and completion are major priorities, and individual faculty are at the heart of most of the college's private sector partnerships, which includes the performing arts, a radiologic technology department that ranks in the top five in the U.S., and a dental technology program that leads the nation. 140

Decreasing Time to Completion

As explained in earlier sections, completion can be key for achieving real wage gains. In addition, the longer that full-time students are enrolled, the longer it takes to begin earning returns from their educational investment. Remediation has been a major factor elongating time to completion. At LACC, a large number of students were scoring so low on their entrance exams that they had to begin their college careers already 3-4 years below transfer level. This is a major obstacle for enabling students to progress to good jobs – 93% of students starting at low remedial levels never make it to transfer level math. 141 To tackle this problem, the Administration instituted an Accelerated Basic Skills Pathway. The initiative cuts down the number of remedial classes from 4 to 2 and allows students to finish all remedial classes within a 12-month period. LACC has supplemented this program with 1-2 week free "boot camps" that help entering students hone in on their basic skills before taking their placement tests. The campus has experienced a subsequent doubling in AAs and certificates of completion that the Vice President for Academic Affairs credited in large part to efforts to cut down on remedial classes.

Faculty Mentorship Programs

LACC is piloting a new approach that pairs students with faculty in a mentorship relationship. Importantly, the program is funded with stipends for participating faculty. From an incentives perspective, this program helps communicate the importance of advising and rewards faculty for out-of-the-classroom guidance provided to students. The objective is both to help students advance on a pathway to completion, but also, for advice on employment opportunities. LACC's CTE faculty are well-connected to local industry and have already helped students secure job placements more informally in the past. This approach will also encourage them to help students choose course loads that will resonate with employers in their intended occupations.
VI. Policy Recommendations

“Instead of platitudes and nostalgic glances backward to what it once was, the university needs to take a rigorous look at the reality of the world it occupies today.”

– Clark Kerr, 1963

Former President of the University of California System

Overview of Recommendations

Given the range of challenges and opportunities described in this report, enormous potential exists to scale up the role of community colleges in driving income mobility in California. High-level attention and action from Sacramento could help to both support a more responsive and adaptive system and to catalyze better employment outcomes.

The policy recommendations that follow provide an actionable blueprint to enable California and its regions to better leverage their campuses as economic assets and help more residents to scale the income ladder.

In particular, we focus on areas of untapped synergies in the system that would support two primary (yet interconnected) goals: (1) fostering economic mobility for more CCC students and (2) strengthening the role of the community college as a connection point to good jobs in the state.

Program Criteria

The recommendations outlined below are not intended to be fully exhaustive. Clearly, there are a multitude of interconnected factors affecting and explaining both community college success and intergenerational income mobility.

Acknowledging this reality, we aim to provide a broad set of policy options with a particular emphasis on areas where a clear message from the Lieutenant Governor would be impactful in driving systemic change.

However, while the Lieutenant Governor can play a key role in generating momentum, none of these initiatives can be implemented alone. Instead, they require the collaboration of a wide range of public and private stakeholders within and outside the community college system to work in tandem towards a broadened sense of purpose - delivering upward mobility for more Californians.

To ensure the recommendations aligned to the desired policy goals, three overarching criteria dominated our policy design. Each proposed policy areas satisfies one or all of our criteria:
California Community Colleges must (1) Focus on Jobs, (2) Leverage Scale and (3) Center on Students.

(1) Focus on Jobs

When we asked college leaders about what metrics they perceived most important in judging their success, completion and transfer were the most frequently cited responses. But when we asked students why they chose to attend their college, they almost always referenced their economic future and their careers. Economic motivations were particularly prevalent amongst the low-income students. This disconnect is significant because it indicates that incentives in the system are not always aligned with the goals of the end-users.

We advocate for an expanded scope of mission for CCCs that recognizes the critical focus on the importance of good jobs. Viewing career as an integral piece of a college’s core responsibilities will be crucial if campuses are to fully deliver on creating more pathways to upward mobility.

Instilling a focus on jobs also means recognizing that transfer to a four-year school is not the only option for achieving economic success. While earning a BA remains a powerful option for increasing life chances, it is not the only one. For instance, national data finds that 30% of workers with an AA earn more than the median worker with a BA, and one-quarter of male certificate holders earn more than the median male bachelor’s degree holder. Schools are doing a detriment to their students if the time and resources invested in coursework do not generate returns when some choose to directly enter the workforce after completing a program.

To date, while we appreciate California’s renewed focus on labor market responsiveness, we worry that the good jobs focus is too often limited or delegated to the Career & Technical Education courses and the Economic and Workforce Development Division. The siloed nature of community college campuses means that funding streams or metrics reporting limited to just a single department do not trickle down to overall shifts in strategic outlook.

To achieve the desired behavior change across the entirety of the ecosystem, it must be communicated that jobs, careers, and economic gains are core functions of CCCs, regardless of whether someone reports to Academic Affairs, Student Services, or Admissions. If this message is clear, it will help administrators, partners, communities, and employers to align towards delivering economic advancement for students.

(2) Leverage Scale

As reiterated many times in this paper, the California Community College system is unparalleled in terms of size, and, consequently, potential impact.

The historical legacy of a system designed to be locally rooted and locally controlled comes with a certain set of advantages. For instance, California can and should leverage the dynamism of
individual campuses to pilot and test new programs, and eventually implement the most effective policies state-wide.

However, by constantly taking a local view, the system often fails to capitalize on potential economies of scale and statewide impact. For example, a number of successful job placement programs already exist within the system, but programs are often small and specific, and frequently fail to extend beyond one campus or one field of study. Private sector partners interested in engaging regionally or state-wide find it difficult to launch large-scale programs. Simply put, regional and campus silos not only hinder broad expansion of successful programs, but also hurt students at one campus who could benefit from resources or opportunities present at another campus. The current lack of incentives for working together must be addressed to move the system towards fully leveraging its scale.

(3) Student-Centered

A drawback of a large 114 campus system is its complexity. Siloed decision-making can create a hodge-podge of confusing transfer requirements, multiple advising offices and variable sources of aid that overwhelm even the most dedicated students. Efforts to streamline the student experience will ensure more students reach good jobs and fewer students fall through the cracks.

A system that is dedicated to fostering income mobility must view the students, not businesses, nor the faculty, as the ultimate customer. That means decisions that are user-friendly and that consider the wide range of student needs—whether it be student-parents, formerly incarcerated students, food-insecure students, homeless students or undocumented students.

The CCCs have delivered on expanding access, but to fully enable the second half of the mobility equation—success—leaders must view the system through the eyes of the students.
Recommendation #1: CCCs must make work-based learning opportunities more accessible and integrated into the student academic experience.

To help connect students to good jobs, California and the community college system must increase their investment and support for work-based learning programs. To fulfill their role in enabling income mobility, colleges need to embrace an expanded view of educational development that extends beyond the physical classroom. Work-based learning allows students to explore different career tracks, learn on-the-job skills, build relationships with potential employers, and add experiences to their resumes that align with their fields of study. Critically for students from low-income families, these experiences transmit important soft skills and enable application of academic coursework in a real-world setting. An internship or apprenticeship can provide a community college graduate with a considerable advantage when applying for their first job and launching a career, and can translate into long-term earnings gains.

However, a large number of community college students face considerable obstacles that hinder them from securing work-based learning opportunities on their own. Many of the low-income CCC students we spoke with on campuses expressed that they cannot afford to participate in an unpaid internship program. They also cited family pressure and cost-of-living demands as forcing them to pursue full-time or part-time low-wage jobs during school that will pay bills in the short-term but will not necessarily lead to career advancement. Many low-income community college students additionally lack access to the informal social networks where internships are secured. And students already falling behind on a path to completion expressed fears about deterring precious time and resources from their studies.

At present, the infrastructure does not exist on CCC campuses to support substantial work-based learning opportunities. Outside of some CTE tracks with strong employer relationships (e.g., nursing, building trades), few established and consistent programs exist to place students into direct and relevant work experiences while enrolled at a CCC. Career offices are understaffed and lack steady funnels into internships. Meanwhile, funding programs to subsidize meaningful unpaid work experiences in one’s field of study largely do not exist for CCC students. Students and administrators agreed that finding an internship, identifying a faculty sponsor and matching it to the academic calendar is a challenge for even the most proactive community college student. Career-focused staff should work towards creating annual programs with dedicated spots so that consistent opportunities exist for students and persist from one academic year to the next.

Encouraging meaningful internships for credit would enable community college students to gain work experience while making progress towards a credential. However, current course approval processes make it difficult for many students to receive credit for internships. Most non-CTE programs do not actively encourage course credit for internship experience, making it harder to complete a degree or prepare to transfer while conducting an internship. Campuses need streamlined processes and standardized work-based learning courses that lower the hurdles to
finding and receiving credit for an internship. The internship courses should also align to credentials so that engaging in an internship does not increase the time to graduation.
Recommendation #2: CCCs should support wraparound service provision through better integration with state services.

Our interviews reinforced that many community college students (and particularly those from the lowest-income families) face unique external challenges distinct from those of four-year students. This claim, which was repeated by stakeholders both within and outside the CCC System, resonates with the Equality of Opportunity Project data showing that CCC students are much more likely than UC students to come from families in the bottom of the income distribution.

Family poverty is associated with significant obstacles that make it more difficult for a CCC student to complete a credential, not to mention compete against four-year candidates for jobs and internship opportunities. For instance, a recent study of just over 3,600 students at seven California community colleges found about one-third of CCC students were housing insecure or homeless, and 12% were food insecure. National studies show that community college students living in counties with the highest costs of living had the highest rates of food insecurity. A 2017 report documented that just 15% of CCC faculty and staff felt that their campuses are prepared to offer aid to students experiencing unstable housing and lack of food, even while almost all acknowledged a significant presence of students on campus dealing with these problems. Other students we spoke with struggled to find childcare, to cope with undocumented status, to access mental health services, or to secure reliable transportation to campus.

The state has already made considerable strides in acknowledging these challenges and beginning to try to address them within the context of campus services. Most notably, the Legislature’s 2017 $2.5 million Hunger Free Campuses program provides funding for schools to develop food pantries and designate staff to connect students with government food subsidies. In addition, the recent “Vision for Success Report” calls on the Chancellor to “use the high profile nature of the position to...advocate for additional resources to provide the support these students need to succeed academically.”

We encourage California to scale up its funding for on-campus service provision for community college students who need additional support. While some of the campuses we visited were already offering food pantries, health care centers, transportation subsidy programs, DREAM centers, and childcare facilities (often staffed by child development majors), efforts were largely uncoordinated across different campuses, limiting economies of scale or learnings from other schools’ experience. In addition, funding for some of these programs comes from discretionary budget allocations, leaving these services vulnerable to cuts in times of belt-tightening. If Sacramento were to endorse a statewide source of dollars to finance wraparound service provision on campuses, more students statewide would be able to stay enrolled and intern in their fields of study.

In addition, complexity appears to be a major problem in terms of students accessing existing services they are already eligible for. Many students we spoke with were often unaware of various
programs aimed at minimizing their financial hardship and had difficulty navigating the maze of different offices and departments on campus. Colleges should further experiment with one-stop approaches to student services. Research has found that bringing together services as wide-ranging from academic guidance and counseling to financial aid to ESL are popular with students. More publicity around the availability of these services might also help to bring more potential students with employment barriers (including formerly incarcerated adults and foster youth) to campus who could benefit from additional training and generate value for the local economy.

**To avoid duplication, the Lieutenant Governor should push for alignment of services with other state agencies whenever possible, particularly through physical co-location on community college campuses.** In line with a vision where non-academic needs are incorporated as part of the mission, the CCC Board of Governors has recently endorsed leveraging other public services, stating in the 2017 Vision for Success that the Chancellor should “engage with state lawmakers and officials in health and social services to help better connect CCC students with other public resources that can support them.” However, progress to date has been slow. We think that high-level encouragement of co-location could help accelerate impact and synergies.

**Examples abound of state services that could be well-served from locating on college campuses.** Many community colleges have recently passed large bond measures authorizing capital expenditures to finance the expansion and modernization of their physical facilities, which could provide attractive office space for agencies and services ranging from the Employment Development Department's Disability Offices to CalFresh and local Public Housing Authorities.

However, one state service we believe is especially ripe for co-location are the America's Job Centers of California (AJCC), also known as “One-stops.” The AJCC network is funded by the federal Workforce Investment and Opportunity Act (WIOA) and consists of over 200 physical locations statewide. At an AJCC facility, any resident of the local community can access a full menu of federally-funded career services to help them find employment, ranging from assistance registering and applying to postings on CalJOBS, to career coaches, workshops on networking, and clothing closets for provide appropriate business formal interview attire. Critically, the updated 2014 WIOA statute places much "greater emphasis on treating AJCCs as an access point for education and training services for those who want and need access to opportunities for further skills training as a pathway to job placement." This only further affirms the potential synergies between local workforce services and the community college, the community's primary source of postsecondary education delivery.

LA Trade Tech has taken the lead statewide in piloting the co-location approach, and the results so far are impressive. In addition to providing students with an additional set of job placement support services, the One-stop now provides a direct link for Trade Tech students to services like unemployment insurance, and veterans and disability benefits. Perhaps the biggest advantage has been raising the visibility of Trade Tech as an institution to dislocated workers from the
surrounding community. People come to campus to access the AJCC services, but once many of them learn about the educational programs available, many are then encouraged to easily enroll in CC programs that will help them upgrade their skills and develop better career prospects. Community members that access the center often also sign up for non-credit courses, which makes them eligible for a Trade Tech ID card, which they can then use to access other resources such as the library and health center.

**Inducing AJCC co-location is administratively complex in that responsibility for choosing One-Stop operators is typically allocated to the local workforce development boards.** Indeed, it appears that bureaucratic obstacles might be a reason why this has not happened more broadly across the state to date, given that the state's workforce plan itself endorses the "placement of AJCC staff directly on community college campuses."\(^{153}\)

**However, while the local boards have a degree of autonomy, the California Statewide Workforce Development Board is responsible** for "development and review of all statewide policies pertaining to coordination of services through One-Stops, including objective criteria and procedures for assessing effectiveness and improvement [and] guidance for allocation of infrastructure funds."\(^{154}\) Since the members of the State Board are appointed by the Governor, it seems likely that if the Governor and Lieutenant Governor make it clear that co-location is a statewide priority, the workforce board could respond with strong guidance or mandates as such.
Recommendation #3: Recruit the private sector as partners in fostering the California Dream.

To date, significant numbers of California's good jobs employers are largely sitting on the sidelines when it comes to the community college system. Many of the state’s most prominent private sector entities are conspicuously absent from the state's largest postsecondary education system. While UCs tend to receive large amounts of attention, CCCs were often viewed as a lower return on investment endeavor. In the words of one technology employer, "We simply don't have a natural partner to work with at the community colleges." While this perception might be unfair, changing this narrative is critical if the state is to be successful in the mission of leveraging the community college system as a bridge to upward mobility.

The business community at large in California does not appear to view community colleges as a major priority for local elected officials. Multiple company representatives we interviewed reiterated that they don't hear politicians pushing the community college system as a policy imperative, nor are there perceived political rewards for participation. Various other causes, ranging from refugees, the K-12 education system, climate change and DACA were cited as areas presented by officials as more pressing for community engagement and hiring. As a senior representative of a fast-growing technology company stated, "Businesses don't really see any real political upside from engaging with the community colleges." An impactful statewide strategy for upward mobility must prioritize and communicate the importance of community colleges as an engagement point for businesses.

Though successful partnerships do exist on a campus-level, scale is consistently cited as a major impediment hindering companies from engaging more deeply with the system. Certain large employers like hospitals must work with the CCC system out of necessity to source the volume of certified workers required for their talent needs. But other large industry players, particularly those that are national in scope, expressed an inability to spend the needed time finding the right counterparts to connect with on individual campuses. One employer described the status quo as follows: "There's no movement. It's all one-off partnerships that are very scattershot. But instead this should be a unified effort that creates a direct pipeline to a hub of companies in the same industry." From a campus perspective, there is legitimate reason to be skeptical of committing large resources ahead of industry. Policymakers should be aware of a historical distrust rooted in unfulfilled promises from hiring plans that never materialized, even after colleges made significant investments in faculty and equipment.

And yet, clear untapped synergies exist between the CCC system and California's private sector. Industries ranging from technology to health care to construction management are desperately seeking out diverse talent that better reflects the demographics of their customer bases. Numerous employers expressed major difficulties locating bilingual workers with the needed technical skills. As one company manager remarked: "It makes sense from a societal perspective and a business perspective if community colleges can help us to hire people that look like our
customers. Community colleges can enable us to broaden our hiring search beyond our own networks. If they can churn out large numbers of candidates with the skills we need, then it's a win-win."

**Working in tandem, the Lieutenant Governor, CCC Presidents, and prominent local public officials can play a huge role in showcasing the assets of community college students.** Leadership on both the state and campus level is critical to generating the needed momentum and attention on the CCC system in the private sector. High-profile public-facing gatherings and events, headlined by a diverse group of political leaders, local campus administrators, and companies, can help drive home the message that CCCs are open for hiring and break down some of the existing myths about community college graduates. A large state-wide community college internship or apprenticeship program could also help generate publicity and employer interest at scale. For instance, Oakland's Classroom2Careers, Sacramento's Summer Youth Employment Initiative, and San Francisco's Youth Jobs Plus have all effectively coupled cross-sector partnerships with strong political support to deliver thousands of summer internship opportunities for young people in their cities. Similar efforts centered on the CCC system could help catalyze strong employer responses.

**A second way to generate new energy around the community college system is through employer tax incentives.** Today, California's businesses receive benefits in the tax code for investments ranging from capital expenditures, to relocation, to targeted hiring of vulnerable populations. It makes sense that California employers who invest in building the skills of future workers should be rewarded just as employers are credited for investing in research & development and equipment. The Lieutenant Governor or other officials' endorsement of such a policy sends a clear message to businesses that they should "play a more active role in funding and directing educational options at community colleges." As a model for a tax package, California can look to the Obama Administration's proposed "Community College Partnership Tax Credit" for Fiscal Year 2017. The Treasury Department's revenue proposal incorporated a one-time $5,000 credit per community college student hired, with a $500M annual allocation over the course of five years. The proposal also included requirements for businesses to partner with community colleges to improve curriculum and donate relevant materials. On a state level, Oklahoma offers a sector-specific college hiring credit. Their tax code reimburses companies for up to 10% of an employee's salary (up to $12,500) if they hire aerospace graduates from Oklahoma's public colleges and universities. Overall, we encourage California to aspire for simplicity. Rather than allocating credits through applications to a government agency, businesses should be able to claim the credit when submitting their taxes to avoid undue bureaucracy.

**To truly catalyze impact and momentum, the policy change must be meaningful for both businesses and the colleges.** This means an incentive that is sizeable enough to create excitement within the business community and make it worth the effort for employers to start new programs.
One path California might consider is a model for tiered engagement. For instance, a lower-value credit could be offered to companies that purely hire CCC graduates, and a larger credit for businesses that develop curriculum, donate equipment, and hire multiple students each year. Another option to incentivize scale and accelerate impact would be to target the tax incentives specifically towards apprenticeships. South Carolina would be a good example here—the state has been offering a $1,000 credit per apprentice since 2007. All apprenticeships are embedded within the South Carolina Technical College system and employers are offered free access to apprenticeship consultants who guide them through the process of starting a program. Since state support was introduced, 14,000 apprentices have been served and the number of employers offering apprenticeships in South Carolina has increased by over 750%. In this case, California could build off of some of the resources already allocated for apprenticeships through Montoya funding, and perhaps target specific high-priority industries as an initial pilot and proof of concept.

From a campus perspective, a true partnership with the private sector to achieve income mobility will also require a fundamental rethinking of career services to deliver good jobs at scale. Overall, California’s community colleges tend to underinvest in career resources, particularly for students on general education or liberal arts tracks. Many campuses lack staff and/or dedicated counselors to place students into internships and jobs. When asked about career services on campus, one frustrated administrator shared, “We have not had a career counselor on campus for over a year.” The career counselors that do exist are either specifically mapped to CTE programs or tend to focus on general career exploration, not job placement. They help students think about career options but lack large-scale relationships to actually present large volumes of concrete employment opportunities to students. Employers that would hire community college students complain that no central staff exists to help them navigate the bureaucracy of a college campus or district. While career fairs exist, they are often organized by student governments and are largely informational rather than serving as direct hiring sites.

However, with the right resources and focus, multi-campus private sector partnerships can flourish. The most successful internship and career matching programs typically had dedicated staff who worked year-round bridging the gap between campuses and employers. It was often the case that a regional intermediary, such as a Chamber of Commerce, industry association, union, or non-profit played this role. For instance, in Los Angeles, the LA Bixel Exchange is supported by the Los Angeles Area Chamber of Commerce. Their staff work with 60 technology companies in the Los Angeles area to offer company tours, workshops, career fairs, and internships for students at ten different CCC campuses. The LA Area Chamber should be commended for their work supporting local students, and community colleges should use it as an example of how an effective broker can pool needs across campuses and make it easier to interface with the private sector.
Finally, CCCs need dedicated career offices that can serve the entirety of the student body, not just CTE students, while simultaneously connecting to the business community. Every community campus should have dedicated and full-time career staff that are in communication with larger state-wide efforts to launch partnerships with particular industries or large employers. While the faculty-industry connection to job placement remains important, these activities need to be well-documented centrally to avoid loss of relationships when individual faculty depart. In addition, centralizing employment activities will give all students support and a place to go to find jobs, not just those who happen to connect to a faculty member. Internal student support from career offices must be coupled with an effort to be more outward-facing. They need to spend time communicating with human resource departments in a region to understand where job openings exist. Private sector recruiting departments should know exactly who to call in the community college network when looking for new candidates. Career offices must also coordinate regionally so campuses can develop robust pipelines to large employers. All of these activities take time and campuses need to invest in hiring adequate staff to manage relationships, advise students, and research job and internship openings.
Recommendation #4: CCCs should leverage the scale of the system and the diversity of the state to foster geographic mobility and moving to opportunity.

The sheer size and diversity of California as a state means that the geography of jobs can matter a great extent for job quality, wages and opportunity. From stakeholder after stakeholder in the CCC system, we heard about the need for campuses to "better align" to the demands of their local industries. CTE Deans, for instance, seem to be taking in and heeding a very clear message to pay more attention to labor market data and attempting to adjust their program offerings to better reflect the jobs of the future in their regions. We commend California for taking the regional supply-and-demand framework seriously, which also reflects much of the "best practice" thinking nationally.

However, we were also struck by a number of challenges associated with this approach while interviewing stakeholders in the field. A first question was around existing job quality in the regions. In some of the state's most struggling or depressed areas, it can be difficult for CCCs to catapult their students into family-sustaining wage jobs when very few of these opportunities exist in their surrounding neighborhoods. Take, for instance, the example of Imperial Valley College. Average weekly wages in Imperial County are amongst the lowest in the state and sit at just 61% the levels of neighboring San Diego County. A community college itself might be delivering excellent educational outcomes but the absence of high-wage jobs in the region leaves students with a limited option set. We worry that this reality can create a dangerous self-sustaining cycle. Local residents may see very little perceived economic return to CC attendance and persistence if their post-graduation employment opportunity is a low-wage job they could have accessed without an education.

Second, at present, the reality is that the opportunity set in the state is not equally distributed across regions. Private-sector workers in metro San Jose and metro San Francisco are the highest-paid in America, with average weekly earnings that are 65% higher than the national average. Many overlook the relevance of growth in the Bay Area or Los Angeles for middle-class families, believing that the gains are limited to the very top of income distribution. While it is true that both labor markets are highly bifurcated, the reality on the ground is much more complex. The San Francisco metro area features over 554,000 middle-skill jobs, including many unfilled positions in health care and finance that do not require a BA. Similarly, in Los Angeles and Orange Counties, there are a projected 67,450 job openings over the next five years in twenty middle-skill occupations for which community colleges offer degree and/or certificate programs, but only 27,000 career education award earners and 7,800 awards in programs training relevant to the target occupations coming through the region's 28 community colleges.

Certainly, some percentage of these jobs could and should be filled by increased numbers of residents from high-growth regions entering CTE and programs corresponding to high-growth occupations. However, our research revealed questions about whether these high-growth areas have the middle-skill talent needed to sustain their trajectories. For instance, CCC enrollment overall has been declining in both Los Angeles and especially dramatically in San Francisco over the last decade. In addition, most of the highest transfer rate schools are located in high-wage
areas of the state, indicating that a significant portion of CCC students in these areas do not intend to directly enter the local labor force and fill open AA jobs. Redfin's 2017 national report cited the Bay Area for having the highest net domestic migration levels in the country.\textsuperscript{167} While the "Bay Area exodus" seems largely attributable to unaffordable housing prices, median housing prices in nearby Sacramento, a lengthy but feasible commuting zone from the Bay, sit at just one-third of San Francisco's values.\textsuperscript{168} A student at Sacramento City College might be willing and able to fill open technical jobs in the San Francisco Bay Area, especially if the wage differential is large enough. All of these trendlines point to questions about whether highly motivated community college students from outside CCC district lines could help fill the talent gaps that exist.

Finally, it is clear that CA's community colleges to date are not functioning fully as a statewide "system" or talent aggregator when it comes to tapping into employment opportunities. Regional collaboration remains challenging but it seems to have been exclusively prioritized to the detriment of a more statewide view. Many of the students we spoke to expressed willingness to relocate or commute to a neighboring county or across the state if presented with an attractive job prospect outside their home district. However, hardly any recalled ever being presented with information about jobs elsewhere in the state. Nor could they name a place or resource on campus where they might be able to access such listings.

The Community College system sits in a place where it could play a potentially transformative role in determining how middle-skill talent moves around the state. However, administrators and faculty need to be incentivized to take a more systems-wide view towards labor market opportunities. A performance funding system could help catalyze these changes by rewarding schools that help students find good-paying jobs, and sometimes those jobs will be in other areas of the state. The state might also want to consider building tools or centralized bodies that enable schools to collaborate, or reward campuses that open internship slots to students from other schools.

To foster moving to opportunity, the CCC system should leverage existing statewide resources. In particular, the Employment Development Department (EDD)’s online labor exchange system, CalJOBS, contains over half a million job listings, and is accessed by more than a million job seekers every year.\textsuperscript{169} The CC system already has a special entry portal to CalJOBS, but our anecdotal experience on campus is that it is not widely advertised on campus or used by students. In addition, most career services staff we spoke to typically filtered students towards local listings. Most CTE faculty that advertise opportunities funneled them through informal networks rather than formalizing opportunities into systemwide postings. While an informal approach certainly has some advantages, it means that students from other parts of the state or even other campuses in the same district are unable to access the information, and that employers’ ability to access talent is highly dependent on relationships with individual faculty (who might one day leave the campus). Finally, the Lieutenant Governor might also want to explore partnering with private sector players in the state to develop special tools or an enhanced statewide employment network for CCC students that would be easier to navigate for the target end-users, the students.
Recommendation #5: Incentives and funding should better reflect the community colleges' economic mission.

Community college funding in California is currently at an all-time high. Since the Great Recession, California's efforts to reinvest in higher education have far outpaced the nation, with a 15% increase in per student funding, compared to a 2% national average. We commend California for recognizing the importance of long-term investments in education and encourage the Lieutenant Governor and other state policymakers to continue providing robust support to the CCC system.

However, California's current funding model for community colleges merits a fundamental rethinking. At present, CCCs receive most of their funding based on the number of student FTEs enrolled in courses on their campus. This scheme prioritizes bodies in seats but does little to guide outcomes like retention, completion, time to completion, or wage gains. As one top administrator put it, "There is a complete disconnect between how we are funded and what is expected of us." Administrators also explained that the current incentives reward them for offering low-cost, high-capacity classes, which pushes campuses to avoid the more expensive and smaller CTE courses. FTE-based funding does not incentivize campuses to seek out large shares of low-income students, who are often the hardest or most expensive to serve. It may discourage administrators from making critical investments in non-educational but influential wraparound services like counseling and advising. Finally, when funding is not tied to outcomes, it becomes less important whether outcomes are well-tracked. Funding models can be used to improve data collection and success measurement across the community college system.

Campus-level conversations reflected some of the weaknesses of the current funding model. Rewarding enrollment does not always correlate with rewarding the schools that are excelling at meeting student needs. For instance, Glendale CC, the country's #1 community college in terms of income mobility, serves the smallest geographic region in the state. Immense enrollment growth for their campus is not a viable option, and thus additional funding is capped despite the successes at the school. LA City College also cited their frustration with enrollment-based funding. The school has doubled its completion rates, but because enrollment is declining as a result of a tight labor market in LA County, they are losing funding. While schools that serve large numbers of low-income students are eligible for increased funds through the state's Student Equity formula, the categorical nature of the funding can "detract from...colleges' control and flexibility over their student outcomes and resources." After failed efforts in the 1990s, "Performance Funding 2.0" has been launched in several states across the U.S. Indiana, Massachusetts, Ohio, Tennessee, Washington and Ohio have all implemented some form of performance funding for their community colleges. Some states align performance funding to bonus funds and some use it for core funding allocation. While each state chose slightly different metrics and different formulas, all shared a common goal of changing administrative priorities to drive student outcomes. A study funded by the Bill and Melinda Gates
Foundation and the Lumina Foundation suggests that "student-level data in Indiana and Tennessee provide convincing evidence that outcomes-based funding has a strong, positive effect on a range of both interim and long-term outcomes for full-time students in these states. In Ohio, it’s too early to tell." California can learn from these early experiences and begin testing approaches that suit the policy goals of the state.

**Small incentives are already creating some behavior change in the California Community College system.** The Strong Workforce program set aside 17% of its annual budget as incentive funding, with criteria including employment in field of study, median change in earnings, and living wage attainment. 17% of the $248M Strong Workforce is a relatively small share of the overall budget when compared to the system’s $14B state allocation. Nonetheless, in campus interviews, there was a demonstrated rise in awareness about the goals associated with the funding, particularly amongst CTE Deans and faculty, and a number of examples of campuses taking action to align programs, metrics, reporting and staff to capture this new funding. However, while even this small shift in budgeting resulted in some positive changes, the impact seemed to be felt almost exclusively within the CTE department on campus, as the money tended to funnel directly to the Economic and Workforce Development Division. But with only 11% of all students systemwide registered as CTE concentrators, the Strong Workforce funding did not truly target a campus-wide shift towards a career mindset.

California is now beginning to explore CCC-wide funding changes, as Governor Brown’s 2018-2019 budget proposal calls for introducing performance funding at a much larger scale. The new proposal maintains current funding levels but allocates 25% of funds based on financial aid and 25% based on completion rates and awards. We commend the Governor’s ambition to shift focus towards outcomes, with due consideration of access. In particular, the financial aid component, which attempts to reward the campuses that educate the hardest to serve students, is important in sending a message to campuses to avoid cherry-picking students. We would support the inclusion of equity metrics in any subsequent performance funding legislation.

However, we fear that rewarding completion without any consideration of employment does not reflect the holistic view of the role of community colleges articulated above. For instance, the new proposal does not drive towards a focus on jobs nor does it proactively prepare the community college system for future funding shortfalls.

**California should be wary of performance proposals that reward the wrong behaviors.** Defining "success" as solely credential completion misses important ways that community colleges support the workforce. Many CCCs offer courses that are effective short-term job training programs but do not lead to a degree, and a significant proportion of CTE students who do not graduate still experience significant earnings gains. For instance, Fuller’s 2013 analysis of California data found that median earnings for CCC students who stated the academic goal of "updat[ing] their job skills" increased by an average of 11% within one year, even though most of these students did
not complete a credential. A completion incentive alone might lead campuses to drop courses and programs that cater to this type of student.

Completion can also drive campuses to prioritize programs that do not lead to good jobs. For instance, in an analysis of the federal Gainful Employment regulations, Ben Miller found that out of the fifteen certificate programs with the most graduates nationally, ten had typical earnings of $18,000 or less, including the two largest program types—medical assisting and cosmetology. Pushing completion exclusively could lead to campuses to scale up low-value, low-return programs that don’t align with a focus on good jobs and upward mobility.

To make sure wage increases and income mobility are viewed as goals across the entirety of the system, California should consider scaling the Strong Workforce metrics system-wide. Instating measures such as employment in field of study, earnings gains, attainment of living wages, and third-party credential attainment will help to keep stakeholders focused on good jobs. The state might also want to consider including an efficiency metric as suggested by one CCC President, so that campuses are rewarded for effective enrollment management.

Any chances to funding procedures must consider the impact of such a significant change. Large overhauls to existing operating models almost always causes discomfort in organizations. The data requirements of instating such a system could be significant and would require collaboration with agencies such as the Employment Development Department to more effectively track wage outcomes.

As an initial step, California might want to consider creating a more sizable pot of incentive funding before altering the entire system’s formula. The guiding goals endorsed by California’s Student Success Task Force could also help to shape an overall framework for change, using Washington State’s model as the benchmark in assessing past performance funding efforts. Stakeholders from across the system should also be included and consulted again before major changes are made. The incentive should be large enough (> $1 million per campus) to induce significant change, but not so large that campuses will see large swings in the early years. Finally, changes must be well-publicized and phased in over time, so administrators across all 114 campuses have time to adjust their expectations and budget planning processes.

CCC funding should also take into consideration that enrollment is counter-cyclical with business cycles. During the recent recession, community colleges saw a surge in demand as the unemployed sought out community college classes en masse to gain new skills or credentials. This increase in enrollment occurred during a simultaneous decline in tax revenue, and across-the-board cuts to public programs, including higher education. Given that the majority of CCC revenue comes from the state general fund, it is not surprising that the volatility of funding levels reflects volatility of state’s overall revenues. However, as a result, classes were cut and funding for support services like counseling and guidance were reduced by 13%. Experts estimated that budget constraints prevented anywhere from 150,000 to 600,000 students from enrolling in
community college. Many students were "accepted" to their local campus but then unable to enroll in any classes. Limited class space caused many students to extend their time in community college, miss out on transfer requirements, or avoid college altogether.

A community college dedicated "rainy day" fund would allow community colleges to absorb large numbers of unemployed or underemployed workers during an economic downturn. Evidence from the last recession shows that periods of unemployment can have long lasting negative wage impacts. Instead of waiting for the economy to rebound, times of low employment are ideal times for workers to upskill and retrain. Workers will have no place to turn for new skills if community colleges lack adequate resources. Rainy-day funding would turn a period of high unemployment into a period of worker retraining, so that when the economy does recover, workers can reenter the workforce with more skills than when they left.

Support services and first-time students cannot be forgotten during an economic downturn. Graduation rates declined during the recent recession. Periods of high unemployment see a surge in demand from older workers, but community colleges must simultaneously ensure that first-time, college-aged students can enroll in their desired introductory and transfer courses. Remedial classes and transfer courses that lead to CSU or UC programs should be maintained along with CTE classes. The need for ancillary support services does not decrease during a recession, and if anything, students need more advising during uncertain times. Funding should be set aside so that academic and career counseling are maintained to support a growing student body.

A "rainy day" fund will not fill all budget shortfalls. It should be strategic and targeted. Classes that are more expensive but yield higher wages may outweigh demand for transfer courses, assuming a high percentage of displaced workers. Given the wide demographic and industry differences across the state, each community college will experience different demands during a recession. Campuses should be given adequate flexibility to deploy rainy day funds in a way that meets the needs of their local community. Adequate preparation can soften the impact of a downturn on the neediest Californians and ensure the state uses difficult times to strengthen its workforce.
VII. Conclusion

The Dream Lives On: Community Colleges and California’s Future

“What the railroads did for the second half of the last century, and the automobile for the first half of this century, may be done for the second half of this century by the knowledge industry: that is, to serve as the focal point for national growth.”

– Clark Kerr, 1963

Former President of the University of California System

2018 is a particularly opportune moment to make strides towards a more upwardly mobile California. With a $6B state surplus and a labor market as tight as any point in recent history, there is no better time for experimentation and fresh thinking.

Businesses in need of skilled workers are searching for the human capital required to expand and compete in a booming economy. As a generation of Baby Boomers nears retirement, California’s employers are actively seeking out new places to meet the talent needs of a rapidly diversifying population. Equipped with new buildings, bond measures, and renewed attention, community colleges can seize the opportunity to become that destination.

The positive economic news has a different meaning on campuses. The community college system, bolstered by a national reform movement, stands at the precipice of the biggest changes seen in decades. With enrollment declining system-wide as many students opt for the workforce or online competitors, there is a renewed openness to new models of funding and delivery.

However, this is also a moment to embrace long-termism. Headline numbers like job growth and low unemployment rates mask deeper structural problems that have plagued the state for years. There is a generation of Californians who may never reach the middle class if they are not introduced now to a pathway to increased educational attainment.

A time of prosperity is exactly when the state must recommit to building sustainable bridges from poverty into good jobs. The community college system, if leveraged properly, can share in this important responsibility.

We believe all Californians are deserving of the opportunity to realize the California Dream, no matter the incomes of their parents. But realizing the Lieutenant Governor’s vision of an “upward economy for all” means a community college system that shifts with the changing nature of the economy and 21st century jobs. If California can succeed in this mission, it will again lead the nation in creating a more prosperous future accessible to all.
Appendices

Appendix 1: Heat Maps of California Community Colleges Based on Mobility Rates
### Appendix 2: Mobility Rates, Ranks and the Change in the Proportion of Low-Income Students for California Public Colleges and Universities

<table>
<thead>
<tr>
<th>College</th>
<th>System/District*</th>
<th>Mobility Rate**</th>
<th>National Rank (#/2202)***</th>
<th>CA Public Rank (# / 136)</th>
<th>Change in fraction of parents in bottom 40%</th>
<th>Success (% kids top quintile w/ parents from bottom)</th>
<th>Access (% parents bottom quintile)</th>
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**Note:** All community colleges are highlighted; *For community colleges in districts with more than 1 campus, mobility rates are reported at the campus level; **Colleges that did not have reported mobility rates in the Mobility of Opportunity project are not included; ***The national rank includes all US colleges, including small schools with less than 300 students per cohort. For colleges with more than 300 students per cohort, Cal State LA ranks #1 and Glendale Community College is #10.

Appendix 3: Mobility Rate Regressions

All of the bivariate regressions below use campus-level mobility rate data from the Equality of Opportunity project. The mobility rate dataset was combined with data from the Integrated Postsecondary Education Data System.

![Mobility rate and 2-year Transfer Rate](image)

**Regression Statistics**

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**Coefficients**

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<th>Upper 95%</th>
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<th>Upper 95.0%</th>
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<td>Intercept</td>
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<td>0.2859</td>
<td>11.5463</td>
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<td>2.7343</td>
<td>3.8685</td>
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<td>Overall transfer rate (2y)</td>
<td>-5.1216</td>
<td>1.8813</td>
<td>-2.7122</td>
<td>0.0078</td>
<td>-8.8647</td>
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### Appendix 4: Primary Interviews (October 2017–March 2018)

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<tr>
<th>Name</th>
<th>Organization</th>
<th>Title</th>
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<tr>
<td>Josh Goodman</td>
<td>Harvard Kennedy School</td>
<td>Associate Professor of Public Policy</td>
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<tr>
<td>Jeff Strohl</td>
<td>Georgetown University Center on Education and the Workforce</td>
<td>Director of Research</td>
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<tr>
<td>David Deming</td>
<td>Harvard Kennedy School, Harvard Graduate School of Education</td>
<td>Professor</td>
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<tr>
<td>Danny Yagan</td>
<td>University of California, Berkeley and the Equality of Opportunity Project</td>
<td>Assistant Professor of Economics</td>
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<tr>
<td>Robert Schwartz</td>
<td>Los Angeles City College Foundation</td>
<td>Executive Director</td>
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<tr>
<td>Jeff Mrizek</td>
<td>California Community College Chancellor’s Office</td>
<td>Dean, Effective Practices</td>
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<tr>
<td>Lori Sanchez</td>
<td>Center for a Competitive Workforce; CCC Center of Excellence</td>
<td>Director</td>
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<td>Larry Frank</td>
<td>Los Angeles Trade Tech</td>
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<tr>
<td>Tim Aldinger</td>
<td>California Community College Foundation</td>
<td>Director of Workforce Development Services</td>
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<tr>
<td>Ryan Fuller</td>
<td>California Community College Chancellor’s Office</td>
<td>Acting Director of Research</td>
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<td>Jan Swinton</td>
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<td>Dean of CTE</td>
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<td>Edward Karpp</td>
<td>Glendale Community College</td>
<td>Dean of Institutional Research, Planning and Grants</td>
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<tr>
<td>Francisco Rodriguez</td>
<td>Los Angeles City College District</td>
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<td>David Viar</td>
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<td>President/Superintendent</td>
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<tr>
<td>Dan Walden</td>
<td>Los Angeles City College</td>
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<tr>
<td>Adriene &quot;Alex&quot; Davis</td>
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<td>VP of Economic and Workforce Development</td>
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<td>Patrick Perry</td>
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<td>Jose Carrillo</td>
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<td>Jan Swinton</td>
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<td>Efrain Silva</td>
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<td>Michael Scott</td>
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<td>Laura Metune</td>
<td>Vice Chancellor for External Relations</td>
<td>California Community College Chancellor’s Office</td>
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<tr>
<td>Chris Dombrowski</td>
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<td>Policy Consultant</td>
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<tr>
<td>Joey Freeman</td>
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<td>Marty Alvarado</td>
<td>Jobs for the Future</td>
<td>Senior Director, Learning Communities</td>
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<tr>
<td>Kathy Booth</td>
<td>WestEd</td>
<td>Senior Research Associate</td>
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<tr>
<td>Tim Kelley</td>
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<td>President/CEO</td>
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<tr>
<td>Linda Bidrossian</td>
<td>Bay Area Council</td>
<td>Senior Vice President</td>
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<td>Silvia Rodriguez</td>
<td>Imperial Valley Economic Development Corporation</td>
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<td>Lindsey Heisser</td>
<td>Los Angeles Area Chamber of Commerce</td>
<td>Interim Director, Bixel Exchange</td>
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<td>Alma Salazar</td>
<td>Los Angeles Area Chamber of Commerce</td>
<td>Senior Vice President, Center for Education Excellence &amp; Talent Development</td>
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<td>Sean Arian</td>
<td>Los Angeles Area Chamber of Commerce</td>
<td>Vice President, Innovation &amp; Emerging Technologies</td>
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<td>Christian Nunez</td>
<td>Assembly Member Eduardo Garcia, 56th District Office</td>
<td>Field Representative</td>
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<td>Itzel Moncada</td>
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<td>Nick Loret de Mola</td>
<td>California Workforce Association</td>
<td>Deputy Director</td>
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<td>John Wilson</td>
<td>Coalition for Responsible Community Development</td>
<td>America’s Job Center at Los Angeles Trade Tech</td>
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<td>Priscilla Cheng</td>
<td>Los Angeles County Federation of Labor, AFL-CIO</td>
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<td>Ian Johnson</td>
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<td>Ananth Kasturiraman</td>
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<td>Vikrum Aiyer</td>
<td>Postmates</td>
<td>Vice President of Public Policy</td>
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<td>Marcia Rivera</td>
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<tr>
<td>Natalie Zavala</td>
<td>Kaiser Permanente</td>
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<td>Alicia K. Solis</td>
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<td>Adi Raval</td>
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<td>Dennis Petrie</td>
<td>California Employment Development Department</td>
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<td>Mollie Smith</td>
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<tr>
<td>Karthik Ilakkuvan</td>
<td>College Excellence Program, The Aspen Institute</td>
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<td>Ben Harris</td>
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