



LEAGUE OF WOMEN VOTERS® OF CALIFORNIA

A STUDY OF PUBLIC HIGHER EDUCATION IN CALIFORNIA

STUDY GUIDE

AUGUST 2015

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Study of Public Higher Education in California

STUDY GUIDE PUBLICATION – SEPTEMBER 2015

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ACKNOWLEDGEMENTS

The LWVC membership and the LWVCEF would like to acknowledge and thank the following League members who devoted many, many volunteer hours to researching the following aspects related to the Study of Public Higher Education in California: equity, funding, affordability, preparedness, and opportunities/barriers to student success. This large committee of 13 divided into five sub-groups to study those specific aspects that greatly impact *access* to our system of public higher education. Each member's research area is noted in parenthesis after their biographical sketch. Subsequently, a smaller group of five committee members took the more than 150 pages of research and synthesized it into the final Study Guide and Consensus Questions. The members of the Writing Team have an asterisk after their name. A special note of recognition and appreciation is given to Louise Jaffe for all the work she did on the tracking and notation of the extensive list of references and endnotes.

Jodi Balma is from the LWV North Orange County, where she chairs the Student Outreach Committee, which trains students as volunteers in registration campaigns and election events. In addition to teaching political science, she also serves as the Honors Coordinator at Fullerton College, where she's worked since 2000. Her research has been devoted to California politics and local government, and most of her writing has focused on reform efforts in electoral politics. (Affordability)

Barbara Dunsheath is from the LWV North Orange County, where she has participated in "Read with the League." Dr. Dunsheath is currently a community college professor of history at East Los Angeles College and a member of the board of trustees of the North Orange County Community College District. She was a cochair of the Commission on the Future, a group responsible for authoring Vision of the Future 2020. Barbara received her Ed.D. in 2010. (Equity)

Wade Ellis is from the LWV Southwest Santa Clara Valley. Mr. Ellis retired from West Valley College after 30 years of teaching mathematics. He also served for nine months on the board of trustees of that district. He has coauthored 25 books on teaching and learning of mathematics. Currently he is the senior mathematics advisor for the Texas Instruments Education Technology division and the mathematics editor of the Pacific Crest Company. (Preparedness)

Adele Fasick* is from the LWV San Francisco, where she has worked most in voter service and has also served on the board. She was part of the group that prepared the new edition of the *Guide to California Government*. Dr. Fasick was a faculty member at the University of Toronto and later dean of the faculty of Library and Information Science. Dr. Fasick also taught as an adjunct at San Jose State University. Her research has mainly been in the area of Children's Literature and Library Services to Children. (Opportunities/Barriers to Student Success)

Doris Fine* is from the LWV Berkeley, Albany, and Emeryville, where she served as president and where her first major project was to explore opportunities for minorities in the Berkeley schools. Later as director of government on the LWVC board, she helped prepare the Study

Guide for the 2003-2005 Education Update Study. Dr. Fine is a former administrator of affirmative action programs at the University of California. Her Ph.D. dissertation was published under the title, "When Leadership Fails: Desegregation and Demoralization in the San Francisco Public Schools." (Equity)

Sarah Funes is a member of the LWV North and Central San Mateo County. Her interest and work has been in voter service and voting rights. Sarah has been a student at CSM and Skyline College and recently enrolled at UC Berkeley. For the past two years, she has been on two separate work groups of the Chancellor's Office of the California Community Colleges with the charge to rewrite Title V. She has testified before the Assembly and Senate Subcommittee on Higher Education in regard to increasing funding for Disabled Students Programs and Services. (Opportunities/Barriers to Student Success)

Louise Jaffe* is a member of the LWV Santa Monica and is a trustee for the Santa Monica Community College District. In 2014-15, she was chair of the Community College League of California and president of the California Community College Trustees. She also serves on several state-level committees for the community college system. Dr. Jaffe received her Ed.D. in 2012, and her research focuses on improving the transition between high school and post-secondary education. (Preparedness)

Jackie LaBouff has been a member since 1983 of the LWV Torrance Area, where she has served as voter service chair, and is currently education chair. Jackie managed a JTPA federal grant program at CSU Dominguez Hills for several years, working with unemployed adults and teaching education classes for their Adult Education Credential. She has successfully written grants and received funding from the federal Department of Education while employed at the university. (Preparedness)

Susan Rice is a member of the LWV Los Angeles and has served as president of the Santa Monica League and as president of the LWVC. Dr. Rice has worked at Santa Monica College and UCLA. She is as an adjunct lecturer at Pepperdine's Graduate School of Education and Psychology. Her doctoral dissertation was on California Community Colleges. She holds an advanced certified fundraising executive credential and is certified by BoardSource as a board governance trainer. (Affordability)

Elizabeth Shields is a member of the LWV Fresno, where she has served as membership chair and vice president for voter service since 2005. She taught finance at CSU Fresno for almost thirty years until her retirement in 2009. She worked on a project funded by the U.S. State Department, New Independent States, in which she evaluated business curriculum and worked with faculty members at Yerevan State University, Armenia. In 2002, she received a grant from the National Endowment for Financial Education to develop a series of classes in personal finance for people in drug rehabilitation. (Opportunities/Barriers to Student Success)

Leslie Smith is on the board of the LWV Oakland, serving as communications director. She worked at City College of San Francisco for thirty years as an instructor, dean, and associate vice chancellor of governmental relations. Leslie received a national award from higher education organizations for innovation in the field of governmental relation for the "Missing

Student Project" protesting the loss of access to hundreds of thousands of students because of budget cuts and fee increases. She earned an MBA from Cal to better understand the economics of public higher education and to formulate educational policy that was fiscally sound and socially responsible. Throughout her career, she fought for low/no student fees, open access, and equity funding for noncredit, including serving as president of the Faculty Association of California Community Colleges for two years, as an officer of AFT2121, and as an activist. (Funding)

Veronica Tincher* is a member of the LWV Palo Alto and has been a member of Leagues in southern and northern California since 1959. She has chaired local studies and is currently involved in voter service. Veronica served on the LWVC Budget Committee for three years. Veronica worked as an administrator at the University of Southern California for 21 years. She enjoyed positions in research and later became executive director of University Budget and Planning. Upon retirement, she continued to work as a consultant in California, other states, and Puerto Rico. Her community volunteer work included serving on the Santa Clara County Mental Health Board (Commission) and the City of Palo Alto Blue Ribbon Task Force for a Public Safety Facility.

Eleanor Yick* is a member of the LWV Southwest Santa Clara Valley, where she recently served as president for three years. Eleanor joined the League because she enjoys working on studies. She chaired her League's local committees studying both the LWVUS Role of the Federal Government in Public School Education and the LWVC Study of Privatization. Eleanor worked in public education for over 42 years as a teacher (20 years) and in numerous administrative positions (22 years), retiring as superintendent in 2005. Issues involving preK-16 education have continued to be her passion. Eleanor agreed to serve as **chair of the Higher Education Study Committee**. (Equity)

The state study committee members would like to acknowledge and thank **the LWVC Second Vice President for Program and Advocacy Joanne Leavitt**, who served as the liaison between our committee and the LWVC state board, for all her help. Joanne has participated in and chaired many state and national League studies during her League career and provided us with great insights, encouragement, and support.

The state study committee would like to acknowledge and thank the LWVC/EF President **Helen Hutchison** and the LWVC/EF Executive Director **Melissa Breach** for their assistance. We also wish to acknowledge and thank the LWVC/EF office staff Sharon Stone and Elizabeth Leslie, who assisted in posting our background packets, proofing our documents, setting up the SurveyMonkey form, and posting the Leader's Guide for the Study Guide and Consensus Questions onto the League Web site. And a special note of recognition and thanks to Jenny Burger for copy editing all the final documents.

LEAGUE OF WOMEN VOTERS OF CALIFORNIA EDUCATION FUND

Study of Public Higher Education in California

Importance, Process, Scope

This is a pivotal moment in California public higher education. We are in a unique position to fundamentally change higher education in a way that builds on the values of access, affordability and quality that were embedded in the Master Plan for Higher Education. (Little Hoover Commission Report 2013)¹

Almost daily, there are media reports about the need for reform in California public higher education in terms of access, adequate funding, and affordability. Although the League of Women Voters of California (LWVC) has positions on education covering issues in preK-12 education and the California Community Colleges (CCC), it does not have a position on public higher education in California inclusive of the CCC, the California State University (CSU), and the University of California (UC) systems. This lack of an inclusive position has prevented the LWVC from commenting on or advocating for or against proposed policies and legislation affecting higher education. This study was proposed and approved at the 2013 LWVC Convention to remedy this situation.

A study committee was formed with 15 League members from across the state. The committee began its work in August 2014. The first task completed was a refinement of the scope of the study to ***“examining access to quality public higher education in California including funding, affordability, preparedness, equity, and opportunities and barriers to student success.”***

The study committee reorganized itself into five working research groups addressing each of the identified areas in the scope. Research was completed in March 2015. A smaller writing team of five study committee members synthesized the more than 150 pages of research and drafted the Study Guide and Consensus Questions, which were approved by the LWVC board in August 2015.

The study was proposed in order to provide the LWVC with a comprehensive and inclusive position on public higher education in California and in recognition of the League’s belief that education is the bedrock upon which democracy is built and sustained. Understanding the issues and their importance for ensuring access to public higher education is essential for the membership of the LWVC, all residents of California, and the continued strength of our democracy.

LEAGUE OF WOMEN VOTERS OF CALIFORNIA EDUCATION FUND

Study of Public Higher Education in California

February 2014:	Study, including preliminary scope and seed budget, is approved to start by the LWVC.
Feb. 2014-Aug. 2014:	Study committee is appointed and trained; study scope and timeline finalized. Budget (amount, allocations) still in process. Committee reps (3) to work with Melissa Breach on funding/grant applications.
Sept. 2014 – Apr. 2015:	Study committee conducts research, develops study kit and provocative/engaging policy type statements for local Leagues to discuss. Study committee sends out monthly updates, articles, and/or suggested readings to local Leagues (February '15 through June '15).
April 2015 – Aug. 2015*	Editing of final research and study kit documents. Submission to the LWVC August 2015 board meeting for final approval (board meeting date rescheduled from July 2015 to August 2015).
Aug. 2015-May 2016*	Study kit, including consensus questions, published. (Four background packets of suggested readings have been sent out to participating Leagues.) Local Leagues form their own study committees, educate membership via monthly newsletters and/or meetings, and hold consensus meetings.
May 2016-July 2016	Study committee collates/analyzes/reviews consensus feedback from local Leagues; develops, reviews, edits, and finalizes position statement.
August 2016	Study committee submits position statement to the LWVC board for final approval.

(*Dates adjusted when July 2015 state board meeting rescheduled to August 2015.)

**LEAGUE OF WOMEN VOTERS OF CALIFORNIA EDUCATION FUND
Study of Public Higher Education in California**

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LEAGUE OF WOMEN VOTERS OF CALIFORNIA EDUCATION FUND

Study of Public Higher Education in California

I. PURPOSE AND SCOPE

This is a pivotal moment in California public higher education. We are in a unique position to fundamentally change higher education in a way that builds on the values of access, affordability and quality that were embedded in the Master Plan for Higher Education.¹

Almost daily, there are media reports about the need for reform in California public higher education in terms of access, adequate funding, and affordability. Although the League of Women Voters of California (LWVC) has positions on education covering issues in preK-12 education and the California Community Colleges (CCC), it does not have a position on public higher education in California inclusive of the CCC, the California State University (CSU), and the University of California (UC) systems. This lack of an inclusive position prevents the LWVC from commenting on or advocating for or against proposed policies and legislation affecting higher education. This study was proposed and approved to remedy this situation and to provide the LWVC with a comprehensive and inclusive position on public higher education in California.

According to the 1960 California Master Plan for Higher Education, open access to higher education is provided to *all who can benefit from instruction*. In defining the scope and purpose of this study, emphasis is given to the concept of access from the perspective of students and families—can students and families afford to pay for the increasing costs given reductions in state funding? The concept of access also includes preparedness for college work and other barriers and opportunities affecting students’ successful enrollment and completion.

While the relationship of funding and affordability as key components of access is obvious, the inclusion of student preparedness and other issues arising from barriers and opportunities speaks to more fundamental questions of equity: Access for whom? Access to what?

The scope of the study, therefore, has been refined to *examining access to quality public higher education in California including funding, affordability, preparedness, equity, and opportunities and barriers to student success*. Understanding these issues and their importance for ensuring access to public higher education is essential for both the membership of the LWVC and all residents of California.

II. WHY THE FOCUS ON EQUITY?

Who should have access to public higher education?

The persistence of inequity in higher education participation and attainment will reduce the proportion of college-educated adults, which in turn will have detrimental effects on the state’s economy, workforce preparation, and the quality of life of aging baby boomers, as well as to

*aspirations to be a society that provides equal opportunities regardless of race or socioeconomic status.*²

According to Webster's Dictionary, “equity” is defined as fairness or justice in the way people are *treated*. A common misconception is that equity is synonymous with equality, which is typically defined as the state of being equal, that is, being treated the same or offering everyone the same status regardless of individual differences. Equity differs from equality, however, in that it addresses exactly what is needed to achieve a result that is considered fair by recognizing, not ignoring or suppressing, individual differences. If we accept that education remains the central avenue for intergenerational mobility and the only known vehicle for overcoming the social inequality that pervades our society,³ then the goals of California’s higher education system need to focus on “representational equity.”

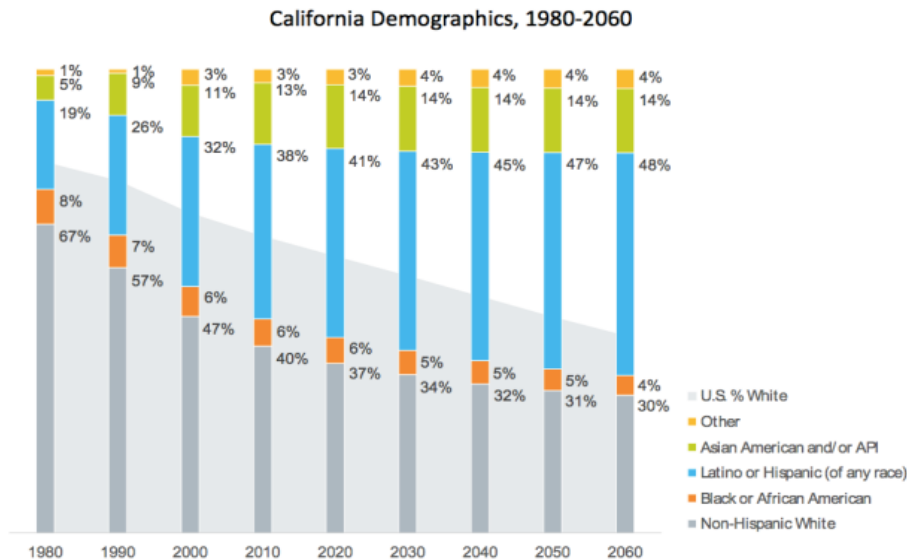
Representational equity is defined as proportional participation of racial, ethnic, and gender groups in access, completion, and opportunity to succeed regardless of economic status.⁴ The California Education Code⁵ has expanded this definition to also include other disadvantaged student groups—foster youth, veterans, low-income students, and students with disabilities.⁶ In this study, through the lens of equity, we examine barriers and opportunities to access that shape public post-secondary education in California today.

Changes in Demographics, Demand, and College Participation Patterns

*California will not be a pleasant place to live for any of us if a permanent underclass largely composed of those from ethnic minorities has little stake in society and little hope for the future. We can easily see how economically weak and socially explosive such a society would be.*⁷

Melting pot or salad bowl, California leads the nation in demographic diversity and socio-economic change, pointing the way toward a future all states will eventually share (see Figure 1).

Figure 1. California is Leading the Nation in Demographic Change

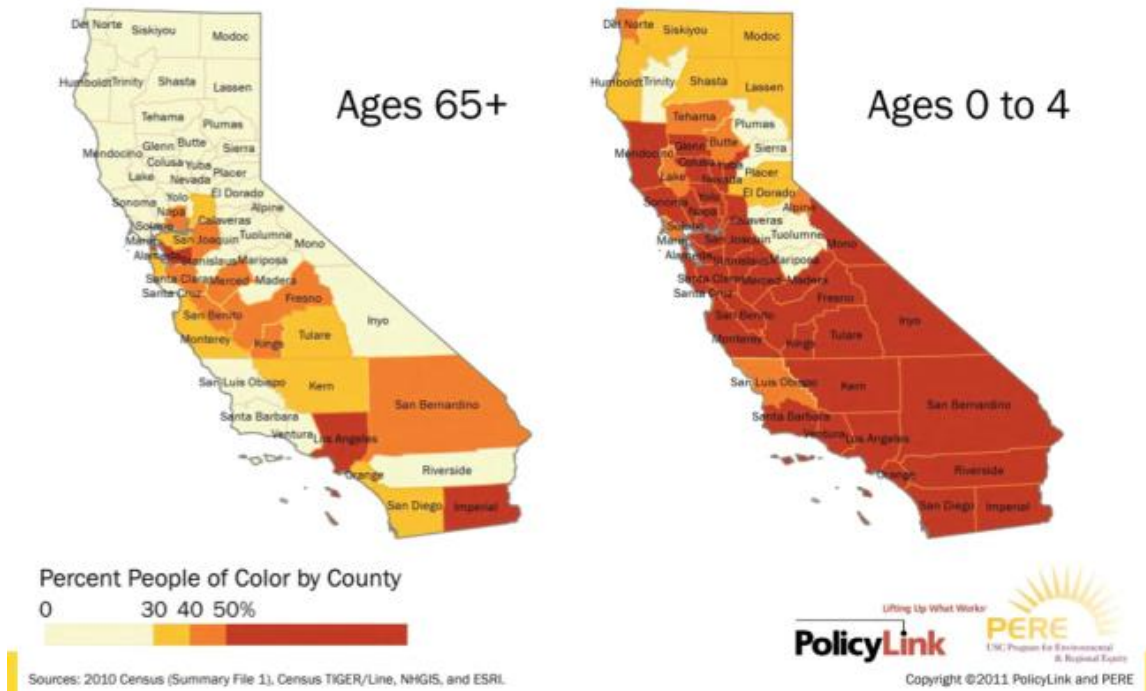


Source: Lizardo, 2014.⁸

And the state is rapidly becoming more diverse in terms of a generation gap between a growing population of lower income students of color who need access to higher education and an older population that will be depended upon to support public higher education (Figure 2).

Figure 2. A New Generation Gap?

The Diverging Demographics of Seniors and Youth



Source: Lizardo, 2014.

In keeping with these changing demographics, there is an overall increase in college attendance, with a marked decrease in the proportion of white males and an increase in the proportions and numbers of college-going women and minorities.⁹ For example:

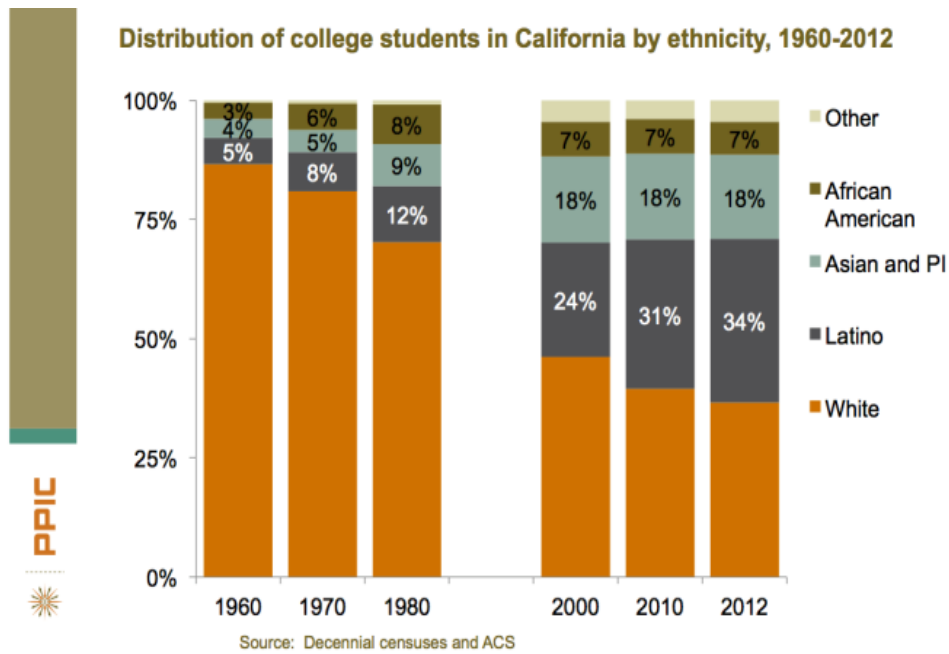
- In 1960, 45 percent of high school graduates, about four million people, went to college. By 2009, that number was 70 percent or more than 20 million students.
- In 1960, women made up only 37 percent of college students, but by 2009, women made up more than half (57 percent) of the college population.
- Part-time students and older students also make up an increasingly larger percentage of the college student population today than in 1960.

Student ethnicity has also changed:

- In 1976, more than 80 percent of college students were non-Hispanic white, dropping to less than two-thirds by 2009.
- In 1960, Latino students made up just 5 percent of California's college students. By 2012, 34 percent of California college students were Latino, and this percentage is expected to increase.

Figure 3, from the Public Policy Institute of California (2015) illustrates the change in ethnic diversity among California college students from 1960-2012.¹⁰

Figure 3. Dramatic Increase in Ethnic Diversity of Students



Source: Johnson, January 2015.

These changes in demand present a challenge to the current system. Broader understanding of the difficulties and possibilities created by the changing demographics and economics of higher education is vital.

III. WHY THE FOCUS ON ACCESS?

Should California revise the access policies established by the 1960 Master Plan for Higher Education?

The 1960 California Master Plan Then and Now

The dogmas of the quiet past are inadequate to the stormy present.¹¹

California state legislators directed the State Board of Education and the Regents of the University of California to create a coordinated plan for higher education in California. The Regents and the State Board of Education presented *A Master Plan for Higher Education in California, 1960-1975* to the governor and the Legislature in 1960. This Master Plan legislation was named The Donahoe Higher Education Act in honor of Assemblywoman Dorothy Donahoe, who had authored the resolution calling for its creation and had been instrumental in the negotiations leading to its successful adoption. The plan defined the distinct missions of the three public segments as follows:¹²

- **The University of California (UC)** is designated the state’s primary academic research institution; its mission is to provide undergraduate, graduate, and professional education. The UC is given exclusive jurisdiction in public higher education for doctoral degrees (with two exceptions at the CSU level) and for instruction in law, medicine, dentistry, and veterinary medicine.
- **The California State University’s (CSU)** primary mission is undergraduate education and graduate education through the master’s degree including professional and teacher education. Faculty research is authorized consistent with the primary function of instruction. SB 724 (2006) authorized the CSU to award a specific Doctor of Education degree (Ed.D.) in educational leadership. Other doctorates can be awarded jointly with the UC or independent research institutions.
- **The California Community Colleges (CCC)** are multipurpose institutions providing academic and vocational instruction for students through the first two years of undergraduate education (lower division), awarding certificates and associate degrees. In addition, the community colleges provide remedial instruction in basic skills, English as a Second Language, community service courses, workforce training—now called Career Technical Education (CTE)—, adult non-credit instruction, and lifelong learning.

California's Master Plan for Higher Education created for the first time anywhere a tuition-free educational system that combined exceptional quality with broad access for students. The plan embedded the values of universal access, quality, and choice via differentiation of admission criteria for each level of the three-tiered system. Indeed, as Clark Kerr reflected in 1999:

It was the first time in the history of any state in the United States, or any nation in the world, where such commitment was made—that a state or nation would promise there would be a **place ready for every high school graduate or person otherwise qualified.**¹³

The Master Plan for Higher Education had specific goals for expanding access and keeping the costs affordable so that *all who could benefit* from a college education would be able to do so. This was achieved by means of the eligibility requirements and distinctive missions of each of the three segments:

- UC campuses (currently there are 10) would take the top 12.5 percent of eligible high school graduates.
- CSU institutions (currently there are 23) would take the top 33 percent of eligible high school graduates.
- Community colleges (currently there are 72 districts with 112 colleges) would accept any high school graduate or person who “can benefit from instruction,” and these students would have the possibility of transfer to a four-year college.

Much has changed since 1960. For example, when the Master Plan was crafted:

- 11 percent of the workforce required a bachelor's degree or higher. Today, the figure is 31 percent.¹⁴

- Even as the need for education has risen, financial support from the state has fallen -- from 18 percent of the budget in the 1970s to 12 percent in 2011.¹⁵
- Appropriations per student have dropped, but tuition and fees have increased.¹⁶

Sixty years ago when the Master Plan was first adopted, California had a robust manufacturing sector. In those days, a high school diploma certified a level of education sufficient to obtain and hold a stable job that paid enough to support a family. This is no longer true. Today and in the foreseeable future, students must pursue at least some post-secondary education to earn a family-sustaining wage:

This growth in demand for postsecondary education dovetails with two major trends. First, the fastest-growing industries—such as computer and data processing services—require workers with disproportionately higher education levels. Second, over time, occupations as a whole are steadily requiring more education.

The implication of this major economic development is that postsecondary education or training has become the threshold requirement for access to middle-class status and earnings in good times and in bad...[Where once it was] the preferred pathway to middle-class jobs—it is, increasingly, the only pathway.¹⁷

The Master Plan emphasized the importance of admitting qualified CCC transfer students to the CSU and the UC as an essential component of the Master Plan’s commitment to universal accessibility and affordability and included policies governing transfers to both types of four-year institutions. The Plan established for UC and CSU lower-division to upper-division ratios of 40:60 to provide 20 percent of upper division enrollment for community college transfer students. The intent was to provide upward mobility to students not ready for college directly out of high school or to allow students who could not afford a full four years at the CSU or UC to opt for two initial years at a community college and then, if accepted, complete their degree at one of the state’s public universities.

A 1987 state review of the Master Plan reiterated the importance of an effective transfer system for community college students by recommending that transfer be considered a central priority. A 1989 review of the Master Plan expanded on this development by focusing on the equity issues obscured by the emphasis on access in general, noting that *economic and social mobility, a key outcome of higher education, is necessarily tied to improvements in educational attainment.*¹⁸

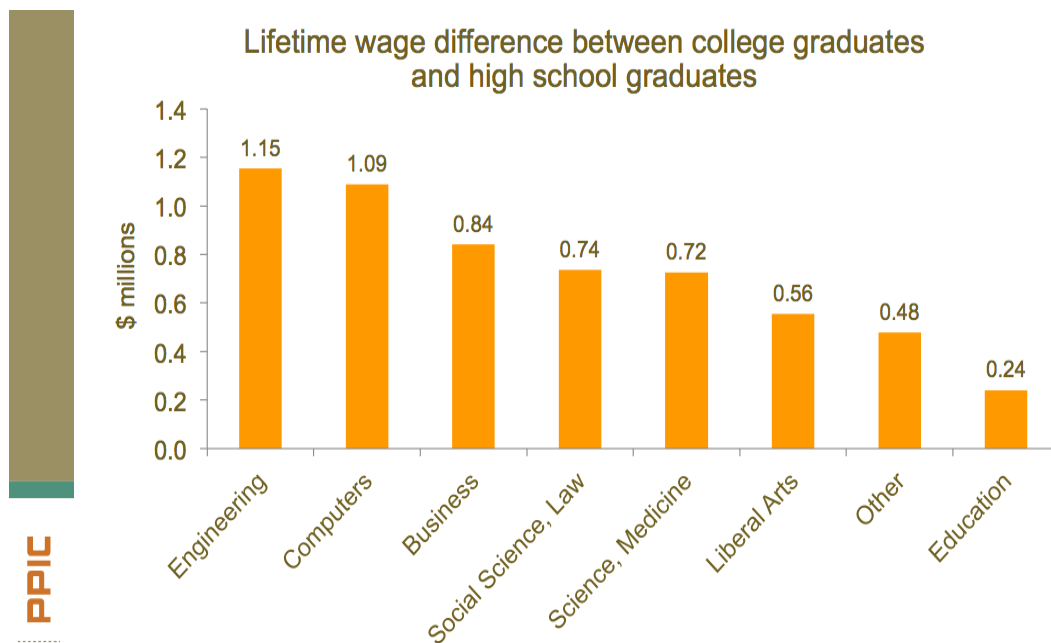
Low Baccalaureate Degree Attainment Today

<p>Is the 1960 Master Plan a barrier to baccalaureate degree attainment?</p>

In today's global economy, competitiveness is based on knowledge and can't be achieved with an uneducated or under-educated workforce.¹⁹ Based on current access and completion rates in higher education and economic projections, the Public Policy Institute of California projects a

deficit of 2.5 million college-educated workers in California in 2025. Of these 2.5 million, 1.5 million will need some college, i.e., certificates or associate degrees from two-year post-secondary institutions, and another one million will need baccalaureate degrees.²⁰ This means that California must substantially increase access to college enrollment and graduation. However, our current system is not able to meet this demand, particularly in terms of increasing the numbers of graduates with four-year baccalaureate degrees required for California's economy. Figure 4 illustrates the enormous financial benefits to individuals and, by extension, to the economy of the state that come with a four-year college degree.

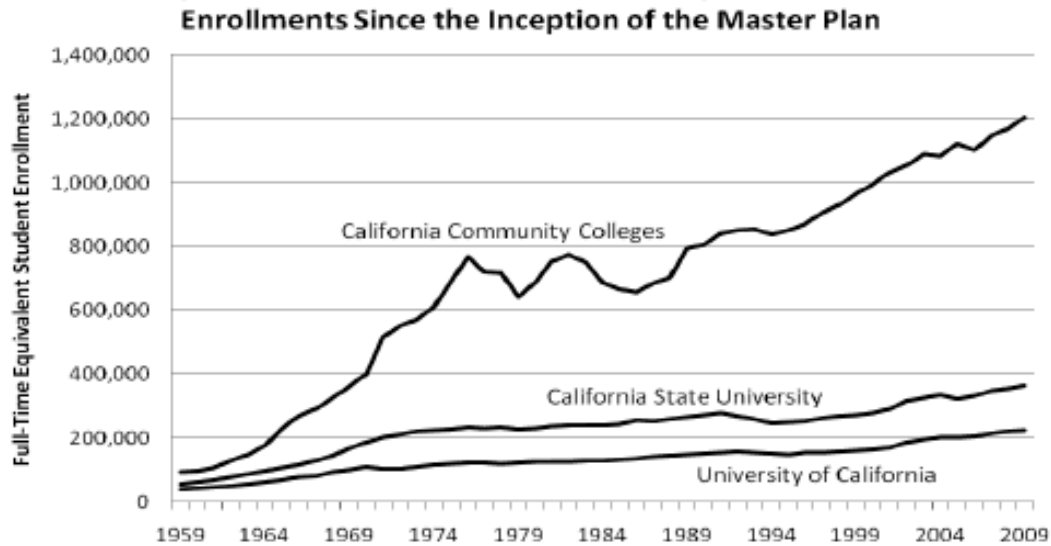
Figure 4. Lifetime Payoff of College



Source: Johnson, January 2015.

Although we live in an economy that puts a premium on post-secondary education and bachelor's degree attainment, four-year enrollments are lagging, and the two-year community colleges have absorbed the vast majority of enrollment growth in higher education. Figure 5 illustrates the disparate enrollment growth in California's three segments of higher education since the inception of the Master Plan.

Figure 5. Growth of California Public Higher Ed Enrollments



Source: Geiser & Atkinson, 2010.

This shift in access away from the UC and the CSU is further illustrated in Table 1, which presents enrollment head counts for the different higher education segments. Just 20 percent of California's college students attend a public baccalaureate-degree-granting institution, and 74 percent attend a community college.

Table 1. California Higher Education Enrollment 2013-14²¹

Institution	Head count	Percent
UC	188,290	7%
CSU	382,332	13%
CCC	2,094,910	74%
Private 4-year*	184,000	6%
<i>(N=2,849,532)</i>		
*77 accredited four-year private colleges.		

Source: Data from Community College League of California 2015 Fast Facts.

In California, lack of access to four-year degrees is a consequence of many factors, but lack of capacity at the UC and CSU, geography, cost, and strict adherence to the original design of the Master Plan are all significant.

California now enrolls a lower proportion of its college students at 4-year campuses than any other state. Even large, demographically comparable states, like New York and Florida, enroll the majority of their students at 4-year campuses. In California, the percentage is just 24 percent. The Master Plan's caps on 4-year enrollment appear especially restrictive when viewed in relation to the size of California's college age

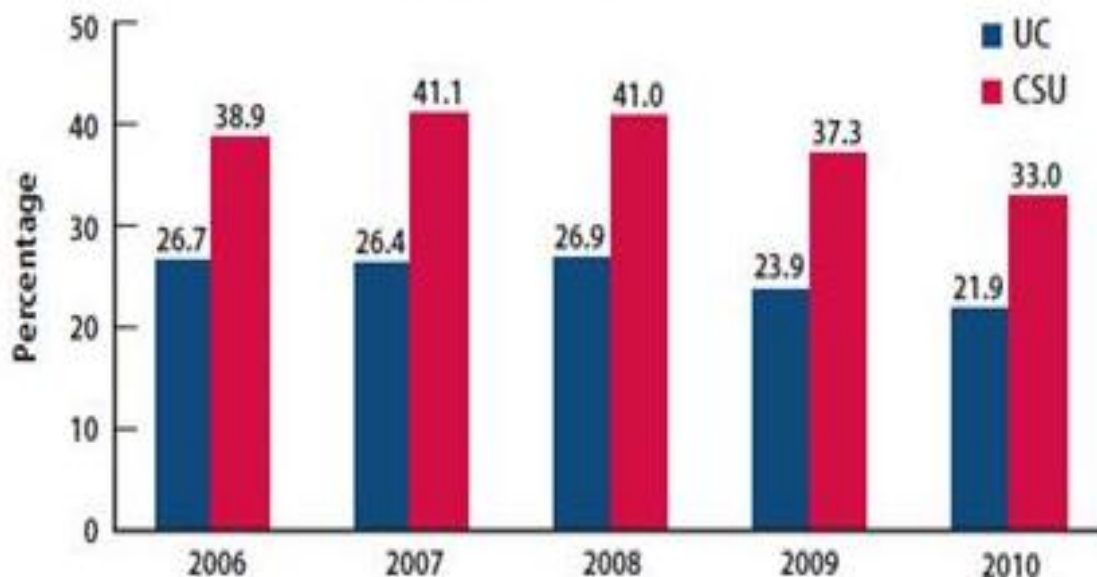
population: only about 8% of our 18-29 year old population is enrolled at 4-year level, placing California next to the last in the nation on this measure. We rank ahead of only Mississippi in the percentage of high school seniors who move directly from high school to a 4-year institution.²²

As stated in “Defunding Higher Education: What are the Effects on Enrollment”:²³

- Increasingly, high school graduates in California are less likely to enroll in any four-year college.
- Enrollment rates at the UC and CSU have fallen from about 22 percent of all high school graduates to below 18 percent.
- Among the state’s most highly prepared high school graduates, the enrollment rate has declined even more—from around 67 percent to 55 percent.
- Many opt for overcrowded community colleges, but increases in enrollment rates there do not make up for declines at the UC and CSU.

Figure 6 shows the decline in enrollment since 2006 among UC- and CSU-eligible high school graduates.

Figure 6. Share of Recent A-G High School Graduates Enrolling at UC and CSU



Source: Johnson, 2012.

Furthermore, low-income and underrepresented minority college students in particular disproportionately begin their postsecondary education at a community college. For example:

- Almost 70 percent (529,300) of California's Latino college students attend a community college.²⁴
- Of the more than two million students in California community colleges, almost half are Latino (≈1,168,000) or African American (≈199,500).²⁵

- Four out of five California under-represented minority college students attend a community college.²⁶

California's over-reliance on its community college system has far-reaching consequences for Latino students in particular, since they are the ones who are most likely to attend community colleges. Although research documents that community college students who do manage to transfer to a UC are as successful, or slightly more successful, than students who began at the four-year college,²⁷ it is also true that students who begin their postsecondary education in a community college with the intent to transfer are less likely to attain four-year degrees than similar students who enter a four-year college directly.²⁸

There are many explanations offered for this phenomenon. Some—unpreparedness, outside employment, funding, affordability—will be discussed below. But research also suggests that the transfer process itself is a barrier to earning a four-year degree for community college students. Only about 60 percent of community college students with 60 or more credits—meaning students who have completed the first two years of undergraduate work and have fully met the academic requirements for transfer—actually transfer.²⁹ This indicates that the process of transferring itself is a "choke point" for California's students.

Despite the transfer mission of California community colleges set out by the Master Plan, completion and transfer rates at two-year institutions are below the national average.³⁰

Fundamentally, California's community college students remain impacted and stymied by the lack of capacity at the UC and CSU. California ranks last among the states in four-year enrollment as a proportion of overall college enrollment. Examining the impact of the Master Plan 50 years after its approval, Geiser and Atkinson write:

The single most critical factor for California to improve B.A. attainment is to expand 4-year enrollment capacity. Yet building expensive new 4-year campuses is an unlikely option given the state's current and foreseeable fiscal circumstances. The alternative is to restructure California's existing postsecondary system.³¹

IV. WHY THE FOCUS ON FUNDING?

Historically, state and local government have been the main source of funding for public higher education in California. In recent years, the public sector has increasingly relied on this source of funding as well as direct funding paid by students and families. Other sources of funds for public higher education derive from research grants, gifts, scholarships, and other miscellaneous sources. The federal government provides support through financial aid for students and specialized grants. These funding streams have varied in proportion over the years. At the time of the enactment of the Master Plan, the UC and CSU received close to 90 percent of their core operational finances from the state general fund, thereby keeping student tuition relatively low. The Master Plan had required that public sector higher education should be free to California residents. Thus, tuition as such did not exist, but certain mandatory fees were permitted. Community colleges historically were funded by local property taxes but are now mostly funded

by the state following the passage of Proposition 13 and its effect of limiting revenue from property taxes. Prior to 1984, community colleges charged no fee.

State and Local Appropriations

The governor, in negotiation with the UC Board of Regents and the CSU Board of Trustees, proposes annual state budget appropriations with allocation guidelines for tuition rates, enrollment caps, out-of-state enrollment caps, and building costs. Ultimately, the Legislature has statutory authority over the final budget subject to veto by the governor. Community college appropriations are based on calculations required by Propositions 98 and 111. The annual Budget Act sets the enrollment fee per credit unit for all community colleges and provides, per Prop 98 parameters, funds for general appropriations, categorical programs, and other legislature priorities. Additional fees, optional and mandatory, such as health and student activities fees, may be charged. Community colleges also receive some funds from local property taxes, including parcel taxes, which require a 2/3 vote majority to pass.

Private and nonprofit institutions also receive state funds indirectly through student financial aid administered by the California Scholarship Foundation. In 2014-15, California student aid comprised about 12 percent of state appropriations to higher education, including private and non-profit institutions.

Defunding Higher Education

The California Budget Project states:

...cuts in state General Fund support have led to significantly increased tuition and fees in recent decades at California's public four-year higher education institutions, threatening the promise—enshrined in the state's Master Plan for Higher Education—of affordable, quality higher education that is accessible to all eligible Californians.³²

While the state once paid most of the costs for the three segments of public higher education, continuing reduction of state support has forced students and their families to assume a greater share of higher education costs, particularly in the UC and CSU. The result of this shift has been to curtail the Master Plan's commitment of universal access to higher education and force students to take on debt to finance their college costs or not attend college at all. The longer term effect of reduction of state support has been to compromise the state's ability to produce enough college graduates to meet the demands of California's future economy.

State funding for higher education and tuition paid by students

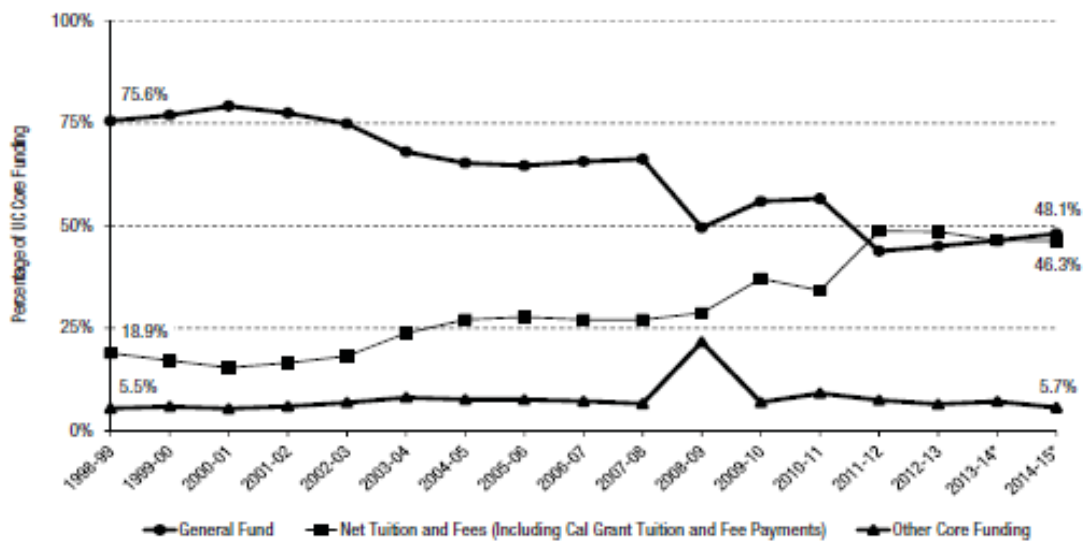
State support for CSU and UC is at the lowest point in more than 30 years, adjusted for inflation. ...While tuition and fees have more than tripled since 1990 at CSU and more than quadrupled at UC.³³

As California's population grew by more than 17 million from 1977 to 2014, public higher education's share of state general fund appropriations declined from 18 percent to 12.4 percent.

However, the share of general fund support for the state’s major programs—health and human services, corrections and rehabilitations, K-12 education—increased from about 60 percent to 80 percent.³⁴ From the perspective of pre- and post-Great Recession, appropriations for higher education have steadily declined from 2007-08 to 2014-15 in constant 2007-08 dollars.³⁵

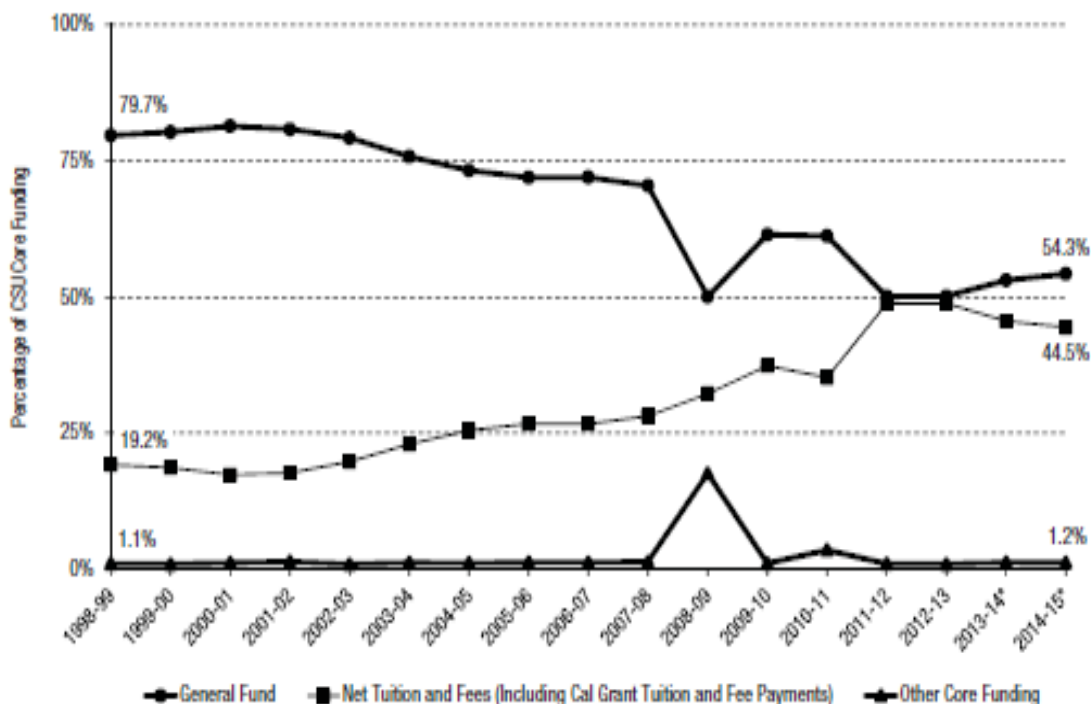
The following graphs³⁶ (Figures 7 and 8) illustrate the decline in state appropriations as a percent of total core instructional expenditures (defined as costs of instruction, research, academic support, student services, teaching hospitals and operations and maintenance) to UC and CSU on a per student basis.

Figure 7. Share of UC Core Expenditures 1998 to 2014



Source: Parker, 2014.

Figure 8. Share of CSU Core Expenditures 1998 to 2014



Source: Parker, 2014.

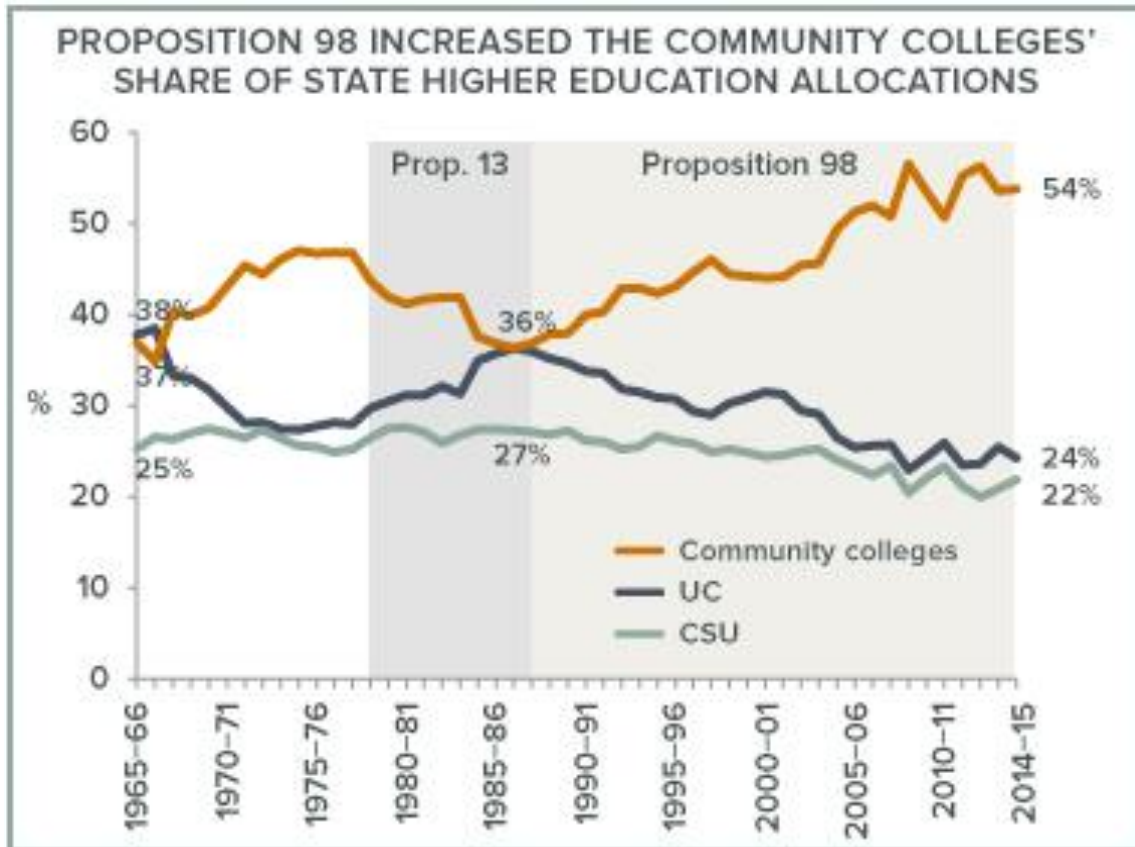
As state funding declined, students began to bear an increased share of the cost of their education.

- In 1989-90, the state general fund made up 76 percent of UC and 80 percent of CSU funding.
- In 2014-15, the proposed general fund budget covered only 48 percent of UC and 54 percent of CSU funding.

This substantial reduction in taxpayer support forced the UC and CSU to make up the difference by increasing tuition or enrollment fees.³⁷

Before fees were introduced into the community colleges in 1985-86, general fund plus local revenues covered basically 100 percent of community college funding. In 2014-15, the proposed general fund budget and local property taxes covered 92 percent of community college funding. Now community colleges receive the largest share of the state general fund appropriations to higher education due to the increase in Proposition 98 funds increased by the passage of Proposition 30 in 2012, as shown in Figure 9.³⁸

Figure 9. State Appropriations to Higher Education 1965-2014



Source: Cook & Johnson, 2015.

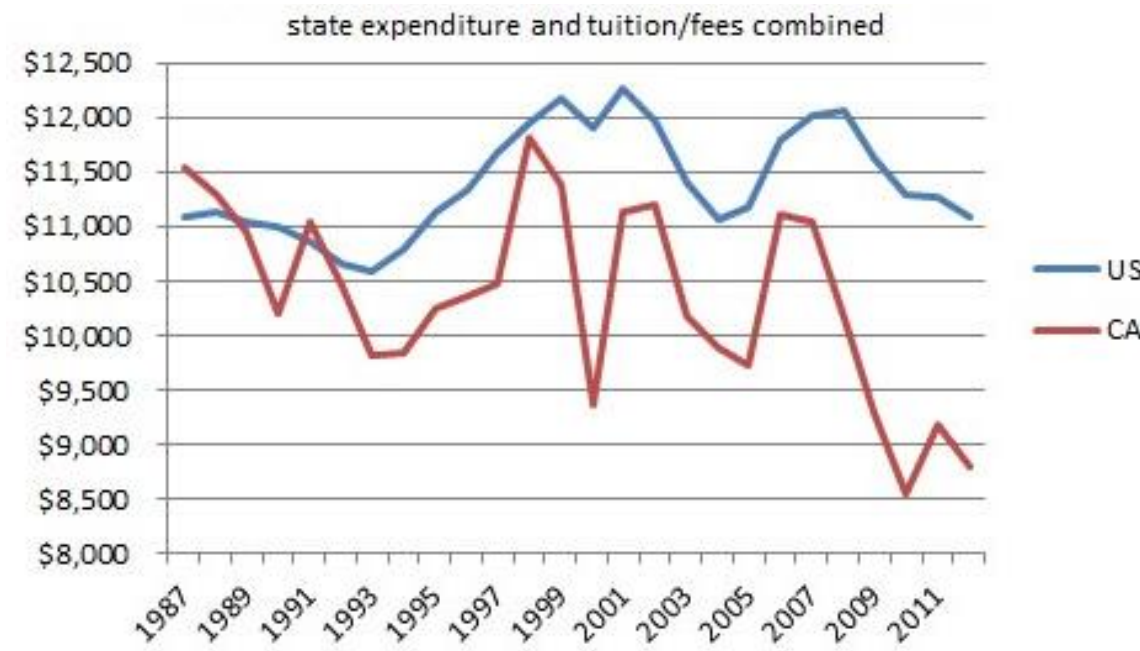
Stability

California lacks a coherent set of policies on tuition, financial aid and appropriations across the public segments that reflect judgments about the appropriate mix of public and private benefit, whether that mix should vary by type of institution and level of instruction, and what constitutes affordable education – both to the student and the public.³⁹

Expenditures for higher education per full-time equivalent (FTE) student, in total, paid together by states and families/students have decreased nationally, especially in California.⁴⁰

In addition to the trend of decreasing state support for higher education and increasing the burden for support by students and families, there is a pronounced lack of stability. Indeed, funds for core higher education programs have shifted sharply from year to year as illustrated in Figure 10.⁴¹

Figure 10. Expenditure per Higher Education Student



Source: Glantz & Hays, 2015.

This volatility has affected planning and the ability of institutions to meet the needs of new and continuing students. Increasing tuition rates have been particularly hard on students and their families who find that their budgets for college costs have increased faster than they had projected. The UC and CSU systems have reacted to reduction of funds by limiting the number of enrolled students, especially transfers, whom they can support. Community colleges and the CSU have also reduced the number of class offerings, resulting in some students being denied access completely and others having to delay or sometimes forego completing their courses for graduation.

Relying on non-resident tuition to fund public universities

Public universities have made space for out-of-state students by allowing fewer in-state ones to attend. The University of California, Berkeley, enrolled 384 fewer in-state freshmen in 2012 compared with 2000, while out-of-state US students grew by more than 300 and the number of international students increased eightfold. This happened at the same time that in-state tuition and fees increased to \$13,200 from \$3,964.⁴²

In response to the severe state cutbacks in funding, the UC system began aggressively increasing the numbers of non-California undergraduates five years ago to offset reductions and a state-imposed freeze on in-state tuition. More than a fifth of all UC freshmen come from such places as Texas, Washington, China, and India, and each pays an additional \$23,000 in tuition, providing the system with an estimated \$400 million in extra revenue that UC officials say helps support the education of Californians.

In 2014, among the freshman classes at the nine UC undergraduate campuses, the highest percentages from out of state were at UCLA (30.1 percent), UC Berkeley (29.8 percent), and UC

San Diego (28.4 percent). For fall 2015, out-of-state freshman admissions for UC Berkeley and UCLA stayed at about 30 percent as promised by President Janet Napolitano. However, UC San Diego and Irvine increased their non-California admissions.

While critics contend that it hurts Californians and reduces political and popular support for the campuses, UC officials insist no California residents are being pushed out to make room for these students. The \$23,000 non-Californians pay on top of the regular \$12,192 tuition provides about 6 percent of the UC's core educational budget and helps maintain classes and financial aid for Californians, administrators say.

Until 1993, it was easy to establish California residency within a year or so and then pay the lower tuition. But UC rules were tightened. Current students must prove financial independence for at least two prior years, among other things, to gain resident status. Out-of-state U.S. students are eligible for student aid, except for the Cal Grant. Foreign students are eligible only for aid from their home country or related foundations.

Reductions in State Support Affected Higher Education Spending and Student Access

In the case of the UC and CSU, increases from tuition and fees largely mitigated the loss of state appropriations so that educational and related expenditures declined only slightly in real dollars. Yet, tuition dollars could not totally replace taxpayer dollars. Rather than making large cost cuts, public institutions were forced to contain the shortfall by directly affecting students either through enrollment caps or reductions in course offerings. The UC accommodated the reduction in state funding by making budget shifts while keeping enrollment flat, thus turning eligible students away and increasing out-of-state enrollment, as discussed above. The CSU went further and cut enrollment, also turning large numbers of eligible students away, and reducing course offerings.

Faculty salaries alone have generally kept up with inflation in the period 2002 to 2013 in the UC, but CSU faculty salaries declined starting with the 2009 recession. However, fringe benefits, although a smaller proportion of total educational and related (E&R) expenses, grew at a much faster pace, 58 percent. At the same time, all three segments shifted their faculty composition to a greater proportion of part-time and/or non-tenure-track teaching personnel. This strategy, which has not necessarily reduced costs, allows for greater management flexibility of the teaching staff, but has been criticized for its effect on the quality of teaching as well as its impact on the earning ability of part-time teachers.⁴³

Costs of administration have been the target of criticism by lawmakers and the public. On a per student basis, UC administrative spending went down by nearly 5 percent from 2006 to 2012, while CSU spending went up by 35 percent per student from 2006 to 2009 and then declined by nearly 5 percent after 2009 until 2012 in real dollars. Student services spending per full-time equivalent (FTE) student has increased by 24 percent for the UC and 40 percent for the CSU in this period. This increase is related to the need for greater student services such as financial aid and counseling and for implementation of federal requirements such as Title IX.⁴⁴

For the community colleges, reduction in state support during the Great Recession resulted in deep and serious cuts. Since enrollment fees for community colleges are set by the Legislature, community colleges may not independently offset state cuts with increased enrollment fee revenue. To meet large budget shortfalls after 2007, the only choice the colleges had was to make severe reductions in course offerings. From the 2007-08 to the 2011-12 academic year, the number of credit course sections fell by 14 percent. The cuts were across the board but greatest in the high enrollment programs such as education, business and management, engineering and industrial technologies, public and protective services, and interdisciplinary studies. Non-credit course sections were cut even more: 34.5 percent in all with the largest in courses for older adults (57 percent).⁴⁵ Correspondingly, the median class size increased from 27 to 30 or about 11 percent in that period. From 2008-09 to 2012-13, community college enrollment dropped by 588,000 students due to lack of funding.⁴⁶ Thousands of other students were on waiting lists, unable to get the courses they needed to make progress, transfer, or complete certificate programs.

Faculty salary and benefit freezes were reported on 45 percent of community college campuses and 32 percent made reductions in faculty and staff as reported by community college administrators. Although the number of FTE community college employees increased from 2000 to 2008, since 2008 the number has declined by 8 percent, with 60 percent of that decline involving credit-course instructors. By 2011, the number of FTE credit-course employees (about 25,000) was the same as the number of such employees in 2004-05, while the number of FTE students was more than 100,000 greater than in 2004-05. Since 2003, community colleges increasingly hired part-time instructors rather than full-time tenure track faculty. Average salary per hour for temporary instructors is only slightly less than for tenure track faculty (\$68.20 and \$69.65, respectively). However, full costs including costs of hiring are greater for tenure track faculty. While guidelines require a ratio of 75 percent tenure track and 25 percent temporary credit-course instructors, a more stringent rule, Faculty Obligation Number (FON), sets out actual tenure-track numbers for each campus with penalties if they are not achieved. The decline in total credit-course instructors since 2008 affected part-time and tenure-track instructors equally.⁴⁷

Non-instructional community college employees include those rendering student support services. Although these are a relatively small proportion of support staff in general, they provide important guidance services to students. In total, FTE staff and faculty who also provide guidance per FTE student declined by 9 percent between 2007 and 2011.⁴⁸

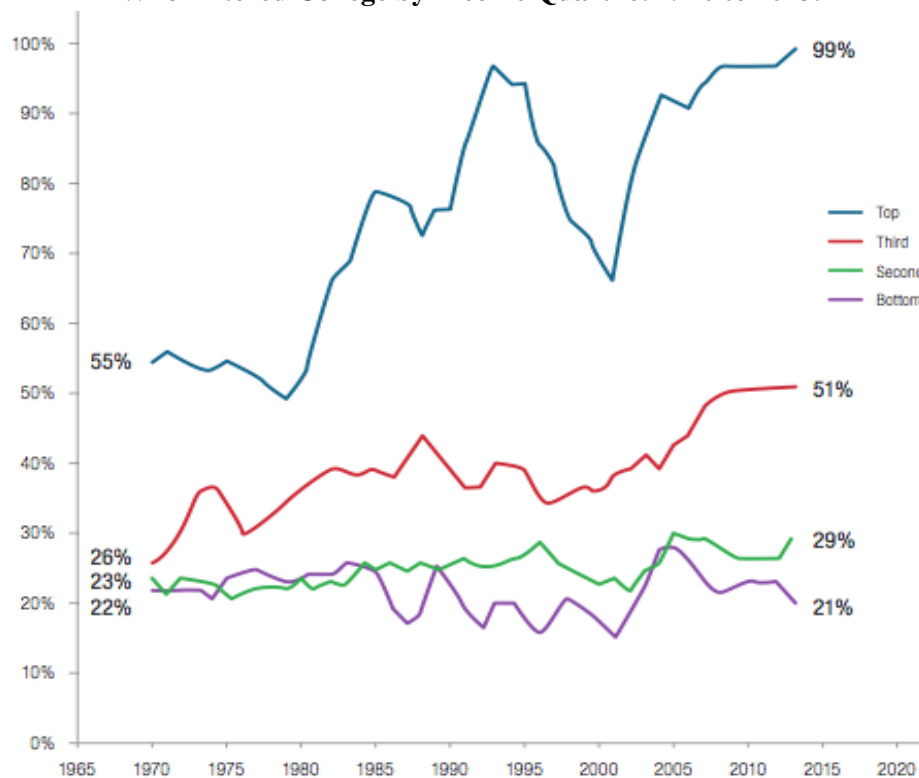
With passage of Prop 30 in 2012 and increasing state revenues, hiring has begun again to restore access and improve instructional and support quality, especially at community colleges which are guaranteed funding since the passage of Proposition 98.

V. WHY THE FOCUS ON AFFORDABILITY?

Perhaps the greatest challenge of all is to ensure that higher education serves as a ladder for economic and social mobility rather than simply reinforcing economic and class divides.⁴⁹

Lack of affordability is a huge barrier to both access and success in post-secondary education. A 2015 report⁵⁰ by the Pell Institute on indicators of equity in U.S. higher education documents a growing disparity (now 78 percent) between baccalaureate degree attainment for college students from the highest family income quartile (99 percent completion) and those from the bottom quartile (21 percent). Figure 11 presents this information.

Figure 11. U.S. Bachelor's Attainment Rates by Age 24 for Dependent Family Members Who Entered College by Income Quartile: 1970 to 2013.



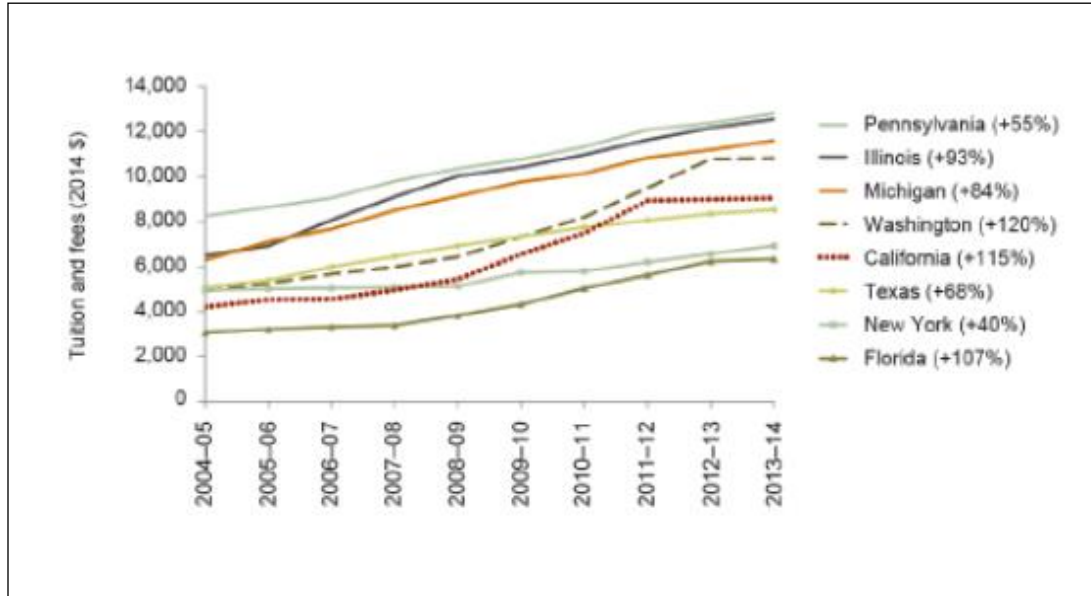
Source: Cahalan & Perna, 2015.

In every state, a university education is increasingly more expensive for students and families as state funding declines. President Obama has touted the need for college affordability, holding a summit with some university presidents in December 2014⁵¹ and pointing to the problem in his 2015 State of the Union message. The White House has urged greater transparency about the costs of higher education and its relationship to what most typical graduates go on to earn. The President also proposed withholding some federal funds from colleges that raise tuition too much.

Figure 12 shows that California has experienced the second highest increases in tuition for comparable four-year colleges with tuition increasing by 115 percent from 2005 to 2014, although it is important to note that in 2004, California's average in-state tuition for four-

year public colleges was below the median (34th) of all states' public four-year college tuition. In 2014, California public four-year tuition ranked 21st nationally, in 2013-14 adjusted dollars.⁵²

Figure 12. Tuition Increases Across States



Source: **Data from the College Board, 2013.**⁵³

But affordability involves more than tuition. Not only are the total costs of attending college higher than in years past, but the ability of families to pay is markedly lower now than 50 years ago. Policy changes on the federal and state level have ameliorated these problems but, in some ways, have increased the complexities. The following section addresses these affordability issues:

1. Reduced financial ability of families to fund higher education; less purchasing power; and, especially for first-generation families, lack of familiarity with higher education;
2. Increases in the costs of education for tuition, fees, housing, text books, transportation; and
3. Federal and state financial aid policies.

Financial Ability to Pay

Families have reduced purchasing power compared to 50 years ago, and for many students, including first-generation students, there is a lack of knowledge on several levels about accessing higher education.

Part-time jobs are more highly coveted and, as a result, the ability to get jobs to pay for education is harder. There are fewer manufacturing and lower-skilled jobs than in the '60s, and many 18-20 years olds do not have the required higher technical skills for better-paying positions. Middle income families with teenagers have lower incomes, comparatively speaking, than middle

income families of 50 years ago. Even households with more education who earn more than those with less education are impacted.⁵⁴

Between 1999 and 2009, tuition at public four-year colleges rose 73 percent on average. During the same period, median family income fell by about 7 percent.⁵⁵ Furthermore, portions of a family budget are skewed differently than in the '60s. In 1960, 8 percent of personal income went to health care. By 1980, 15 percent went to health care. While consumer prices, as measured by CPI-U, grew by 43 percent between 1995 and 2010, the cost of medical care grew by 85 percent.⁵⁶

First-generation college students, who now account for nearly 30 percent of incoming U.S. freshmen and 40 percent of California community college students,⁵⁷ have a tougher go of it than students whose parents have attended college. Without family models, first-generation college students have to figure out how to finance a four-year degree with minimal debt. This population, along with other lower-income students, also faces challenges related to academic and life skills such as managing their time, juggling work and studying, and fulfilling family obligations.

In addition to contributing actual funds, families are confused about the process of applying for federal financial aid, the door to grant and scholarship availability. The standard application, known as the Free Application for Federal Student Aid (FAFSA), required for application for federal and state need-based financial aid, is quite complex and requires extensive income and tax data and other personal information from both students and their families. Most students under the age of 24 are deemed to be dependents of their families and must include family income and assets on the form. Although the form has been simplified in the last year, many students who would be eligible for scholarship assistance never complete their applications. A 2010 survey of 13 California community colleges by the Institute for College Access and Success found that more than 62 percent of students likely to be eligible for Pell Grants, never completed their applications or incorrectly identified them as being complete.⁵⁸

Efforts at improving the financial aid process focus on relieving the complexity of the FAFSA and improving information about the application process. The U.S. Department of Education provides online help to students applying for federal aid and the California Student Aid Commission also provides workshops and assistance. California public institutions are required to provide cost calculators on their Web sites but these are not always helpful.⁵⁹ Ability to pay remains a major challenge to be considered when advising first-generation students who are planning to graduate from college while maintaining their financial and family obligations.

Cost Increases, including Total Cost of College Attendance

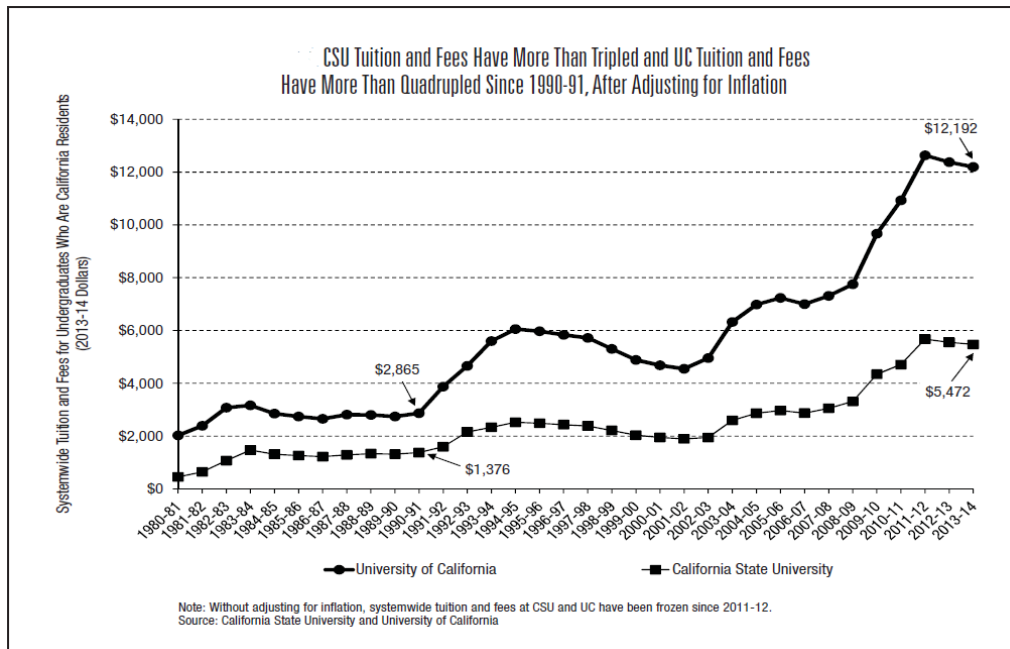
The price for a university education has increased in several ways, not just tuition. Not only have the costs of tuition at the UC and CSU risen, but one must also consider the total cost of college attendance. Student fees and lab fees have been imposed and/or increased, and transportation and housing costs have become a larger part of student expenses, as have the cost of textbooks. These increased costs impact community college students as well as UC and CSU students. Many

scholarships cover tuition but exclude support for other costs of attendance. A rise in debt for today’s students demonstrates the extent and seriousness of this issue. These issues are discussed below.

Tuition

Perceived tuition “sticker price” discourages many students and their families from considering college attendance even if they may be eligible for student aid. Figure 13 shows the steep increase in tuition and fees at the UC and CSU since 1980, shown in 2013-14 dollars.

Figure 13. Rise in CSU and UC Tuition and Fees since 1990



Source: Parker, 2014.

However, most California college students do not pay the full sticker price for tuition. For example, the UC has a Blue and Gold Opportunity Plan that provides system-wide tuition and fees for students whose family income is less than \$80,000.⁶⁰

Student Fees/Lab Fees

In recent years, universities assign additional fees – for labs, for student services, for athletic facilities, etc. These are often not taken into account by students when budgeting. Although the CSU and UC have helpful Web sites for students to calculate required fees, many students are nevertheless surprised by the size of the lab fees that are imposed for certain science courses. UC and CSU campuses all charge additional campus-based fees averaging \$1,300 at the CSUs and \$1,200 at the UCs.

Transportation

Students who commute from home or beyond the neighborhood, have greater transportation costs than those who live nearby or on-campus. And transportation costs have increased from the

'60s. The CSU provides different current estimates for transportation expenses at each campus because the costs vary. The UC estimates \$2,200 for personal transportation for students living on campus and \$3,000 for students living off-campus. This applies to resident and non-resident students.⁶¹

Some four- and two-year colleges have established partnerships with public transit companies, providing free or reduced cost transit passes for students who take the bus. However, students who drive often pay a premium for parking, especially at urban campuses.

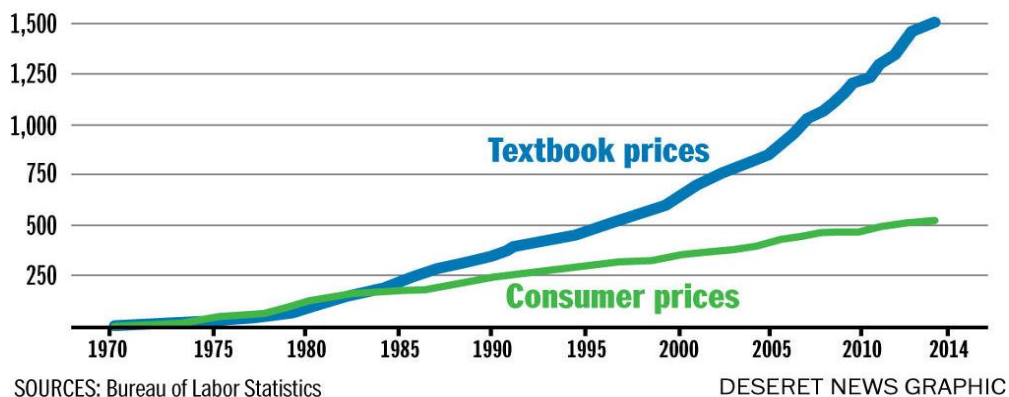
Housing

Students who do not live at home and commute find that dorm or local apartment rentals can be just as expensive or more than tuition. For example, at UC Berkeley, where tuition and fees are \$12,860 a year, on-campus housing is \$14,200 for the academic year, more than 50 percent higher than the national average for public universities. High rental costs for off-campus apartments have put even more pressure on institutions to squeeze extra beds into rooms to accommodate an unusually high demand for on-campus housing. Once thought to be a lower-cost housing option, in recent years off-campus apartment rentals in California's urban centers have increased and now exceed campus designated housing rates. Students share apartments in an effort to cut costs, but there are often disadvantages to such arrangements.

Textbooks

The textbook market is changing dramatically with the advent of more and more online resources, including some open-source materials which are available without charge. However, over the past decade, college textbook prices have increased by 82 percent. Between 1970 and 2014, textbook prices have increased by 1,500 percent, three times the rate of inflation. Textbooks remain one of the largest out-of-pocket expenses for students and families trying to afford college every year.⁶²

Figure 14. Steep Jump in Textbook Prices



Source: Sutton, 2014.

Financial Aid Policies

Need-based financial aid, awarded to assist low-income and middle-class students, does not require repayment. This is true for federal and state financial aid.

Federal need-based financial aid

To help low-income and middle-class students pay for college, the federal government established the Pell Grant in 1972. This grant used to cover more than half the cost of a four-year degree from a public college. Today, because of tuition increases, it covers less than a third. Pell Grants are awarded for up to \$5,775 per year (2015-16) depending on need, and cover tuition, mandatory fees, and some costs for books and living expenses. Students are eligible to receive Pell Grants for no more than 12 semesters, roughly six years. A limited number of Federal Supplemental Educational Opportunity Grants (SEOG) of \$100 to \$4,000 annually are available for the lowest income Pell Grant recipients.

In 2010, this mandatory funding was adjusted with the savings created by the elimination of the lender-based Federal Family Education Loan Program. Thanks to this change, Pell Grants should receive annual cost-of-inflation increases until 2017. In addition to changing the funding mechanism, Congress also expanded the types of income excluded from Pell's eligibility formula in 2007. As a result, more families are now able to qualify automatically for the maximum grant award.⁶³

California need-based financial aid

The centerpiece of California financial aid—the Cal Grant program—is the largest need-based state grant program in the country, providing about \$2 billion/year, and serving 475,000 students.⁶⁴ Below is a brief description of the various Cal Grant awards:

Entitlement programs: high school. Guaranteed awards to all California high school graduates who meet income and grade point average requirements. Students must enroll at least half time in a post-secondary academic program within one year of graduating from high school. If students' eligibility is maintained, Cal Grants fund four years of full-time college enrollment or equivalent.

Cal Grant A. In 2015-16, awards are only for tuition and mandatory fees up to \$12,200 at a UC and \$5,500 at CSU for a family of four with income up to \$80,400 and assets up to \$67,700. Minimum GPA 3.0.

Cal Grant B. Awards are for books and living expenses only in the first year for low income students with at least a 2.0 GPA. In the second year, eligible students may also receive a Cal Grant A.

Entitlement programs: transfer. Guaranteed awards to graduates of California high schools who transfer from a California community college to a UC, CSU, or qualifying baccalaureate degree-granting institution and are under the age of 28. Minimum GPA 2.0.

Same as requirements for high school graduates for Cal Grant A and B awards.

Competitive programs

Cal Grant A and B. Only 22,500 competitive Cal Grant awards are available annually to students who are not recent graduates of high school or are transfers over the age of 28. Only about 6 percent of eligible applicants are successful in receiving one of these competitive awards. This leaves many older students without Cal Grant support even though they qualify. Although the income ceilings and GPA requirements for these awards are the same as for entitlement Cal Grant A and B awards, low income students are given special consideration.

Cal Grant C. A limited number of awards for eligible low- and middle-income students enrolled in career or technical education programs of at least four months' duration.

Cal Grant awards are not distributed evenly across colleges. For example, in 2010-11, undergraduate enrollment in the UCs comprised 5 percent of California's undergraduates but received 44 percent of Cal Grant funding. For the CSUs, the figures were, respectively: 5 percent undergraduate enrollment, 16 percent funding. The largest percentage (67 percent) of undergraduate enrollment was in California Community Colleges, which only received 6 percent of the funding.⁶⁵ Because Cal Grant funding is tuition driven and community college tuition and fees are greatly lower than those of the UCs and CSUs, community college students are less likely to receive a Cal Grant. Additionally, part-time students, who are a significant proportion of community college enrollment, are not eligible for Cal Grants.

Cal Grant spending more than doubled from \$780 million in 2007-08 to \$2 billion in 2015-16 during the period of steep UC and CSU tuition increases. Participation in Cal Grants increased by 18 percent from 2012-13 to 2013-14. This increase was due to increased participation by students impacted by the increase in tuition and the inclusion of undocumented students who fell within the provisions of the Deferred Action for Childhood Arrivals (DACA) or "Dream Act." Pressure to recognize that the rising cost of attendance also affects the middle class's ability to pay and that Cal Grant and Pell grant programs largely support relatively lower income students, the State of California enacted The Middle Class Scholarship Program in 2014-15 by allocating \$100 million. Although the budget has been under-spent, it is planned to be phased in over the future years. California public and accredited private nonprofit colleges are eligible to enroll Cal Grant recipients if they meet minimum default loan rates and graduation rates.⁶⁶

Entitlement and competitive Cal Grant B programs, which are intended especially for low-income students, cover other costs beyond tuition but have not kept up with the increasing cost of attendance. The stipend was \$900 in 1969-70, the year of inception. By 2014-15, the award was \$1,648. Had the award kept pace with inflation, it would be worth \$6,000 in 2014-15 dollars.⁶⁷

Other financial aid programs specifically for low-income community college students

Low-income community college students are eligible for other financial aid resources⁶⁸ that do not require full-time attendance:

Board of Governors Fee Waivers (BOGFW) for credit courses. Available to low-income students who qualify for, but do not necessarily receive, a Cal Grant. Almost one half, more than one million community college students, received a BOGFW in 2013-14, totaling more than \$803 million in financial aid.

There are additional programs for low-income and educationally disadvantaged students. For example, the Extended Opportunity Program and Services (EOPS)⁶⁹ provides academic counseling, tutorial services, textbook rentals, voucher, grant and computer loan programs, along with life skills workshops, transportation service, meal tickets, and school supplies for accepted community college students. EOPS has provided guidance, motivation, support services, and resources to help students complete their educational goals, including vocational certificates, associate degrees, and transfer to four-year institutions.

A related program, Cooperative Agencies Resources for Education (CARE) assists EOPS students who are welfare-dependent single heads of household to “overcome some of the obstacles of being a single parent in order to succeed in college and to help expand their educational and job training opportunities.”⁷⁰ CARE offers educational support services to students as they acquire the education, training, and marketable skills needed to transition from welfare-dependency to employment and eventual self-sufficiency.

The impact of financial aid on affordability

Even with grants from federal, state, and private sources, the annual net cost to families as a percent of income and, even more so, of discretionary income is daunting.⁷¹ Even though Cal Grants for recent high school graduates and federally funded Pell Grants assist more than one-half of UC and CSU undergraduates, low-income families of UC students must pay about 30 percent of total income to cover total cost of attendance. Their cost of attendance is more than 60 percent of discretionary income in the low-income range, as presented in Table 2.

Table 2. College Costs and Affordability in California

Income Range	What does college <u>cost</u> ?			Is the cost of college <u>affordable</u> ?					
	2011-12 Net Price by Family Income			Share of Total Income Required to Pay the Cost			Share of Discretionary Income Required to Pay the Cost		
	UC	CSU	CCC	UC	CSU	CCC	UC	CSU	CCC
\$0 - \$30,000	\$8,808	\$6,563	\$5,815	29%	22%	19%	64%	48%	42%
\$30,001 - \$48,000	\$10,126	\$8,945	-	21%	19%	-	32%	28%	-
\$48,001 - \$75,000	\$13,771	\$13,387	-	18%	18%	-	23%	23%	-
\$75,001 - \$110,000	\$21,234	\$18,572	-	19%	17%	-	23%	20%	-
> \$110,000	\$28,282	\$20,021	-	19%	13%	-	21%	15%	-

Source: The Institute for College Access & Success (TICAS), November 2014.

Although all aid is included in the net-price calculation, Table 2 presents families of first-time, full-time, in-state students who receive a Pell Grant (Title IV). Data for community college students with a family income greater than \$30,000 are not shown, because less than one percent of students in this population had an income greater than \$30,000.⁷²

Ironically, financial aid has failed to help many students and has caused a competitive spiral among universities. Initially intended for the very poor as a way to improve access to higher education, financial aid is available for students of middle income as well, depending on how close they are to the lower end of the middle-income range. For complicated reasons, including an inability to understand how to navigate the difficult barriers to financial aid, increasingly, financial-aid policy choices—at the national, state, and institution levels—benefit affluent students more than those exhibiting the greatest financial need. In addition, with financial aid comes regulation. Many argue that growing federal regulations have increased the costs of higher education due to administrative overload.

Another form of financial support comes in the form of income tax credits through the American Opportunity Tax Credit. These credits, up to \$2,500, can be subtracted from tax liability for middle income tax payers with family income up to \$180,000. Families with low income or no liability can recover up to \$1,000 for educational costs on their tax returns.

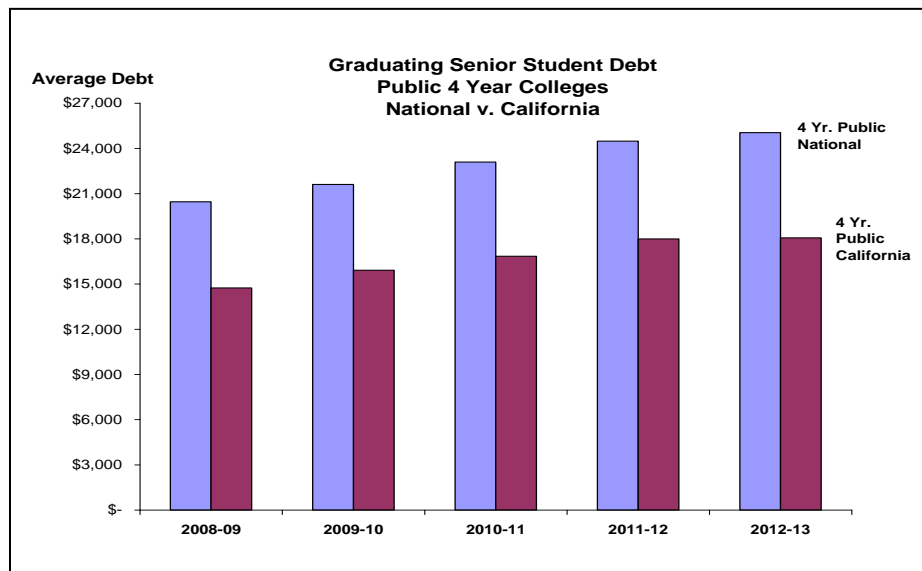
Financial assistance for students is also available through other sources including loans, other grant programs, and work-study programs. Additional grants are available through institution-provided scholarships, government, private foundations, and other private philanthropy. Besides the Pell Grant, federal government programs include GI Bill assistance as well as Stafford and Perkins Loans. Loans must be repaid and are available from the federal government, the state of California, and private sources.

Student debt

To cover the full cost of attendance not provided by federal and state funding or family resources, many students take out loans.⁷³ There have been many misleading stories about the amount of debt that students incur today. Although there has been an increase since five decades ago, as of 2013, only 4.7 percent of borrowers, mostly from graduate and professional programs, have balances of \$100,000 or more.⁷⁴

However, these reports do not distinguish between types of institution—public, private not-for-profit, and for-profit. For-profit institutions have had high amounts and proportions of students in debt. California's college graduating seniors had the second-lowest level of student borrowing in the nation. Yet, student debt has increased steadily nationally and to some extent in California over the past five years. The percent of graduating seniors with student debts from public institutions in California rose from 45 percent to 53 percent between 2008-09 and 2012-13.⁷⁵ Figure 15 illustrates that students graduating from public four-year colleges in California have less debt than their national counterparts.

Figure 15. Graduating Senior Student Debt



Source: Data for graph from the U.S. Department of Education, Common Data Set, compiled by the Institute for College Access & Success, College InSight.

The Institute for College Access and Success⁷⁶ has proposed a number of points to reduce the burden of student debt:

- Increase access to need-based student aid
- Simplify and improve federal student loans and their repayment
- Provide students with key information when they need it
- Protect students and taxpayers from colleges that overcharge
- Reduce the reliance on private education loans and strengthen borrower protections

In the 1990s, a new loan option allowed students to borrow directly from the U.S. Department of Education, which in turn permitted an income-based repayment regime. In 2006, the repayment plans were made more generous, addressing caps on monthly payments and loan forgiveness with 10 years in public service.⁷⁷ Under the National Defense Education Act, loan forgiveness is also possible.⁷⁸

Some argue that more liberal loan forgiveness programs proposed at the federal level may replace the more traditional funding source of state governments. If the federal government forgives loans, states will no longer feel obligated to fund need-based financial aid grants.⁷⁹

Graduate and professional schools

When discussing access and affordability, many concentrate on the first entry-point of college. However, California's promise of higher education has included access to its graduate and professional schools as well. The reduction in state support for these programs may result in much higher tuition costs. Students already burdened by student loans for their undergraduate degrees or otherwise unable to bear the full cost of attendance may be less likely to pursue graduate school.

The U.S. Bureau of Labor Statistics estimates that the number of jobs requiring advanced degrees will grow by 2.6 million by the year 2020. The UC's and the CSU's role in educating these students ensures that California will be an important source of this talent.

VI. WHY THE FOCUS ON PREPAREDNESS?

This section examines barriers to equitable access and success within public higher education in California in terms of a disconnect between preK-12 and postsecondary education.

What does it mean to be prepared for college or college-ready?

College readiness can be defined operationally as the level of preparation a student needs in order to enroll and succeed—without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program.⁸⁰

For many postsecondary students, there is a big difference between being admitted to college and being admitted into college-level coursework. Many college students are deemed unprepared⁸¹ for college-level work and must successfully complete remedial coursework prior to enrolling in college-level English and/or mathematics. Colleges consider these students to be unprepared.

The cost to schools of providing this remedial instruction has been estimated at \$1 billion or more.⁸²

California's Master Plan defines distinct roles for the three public higher education sectors serving undergraduate students. The UC—our most selective sector—accepts the fewest students and has the lowest rates of students needing remediation. Disaggregated by income and ethnicity, 77 percent of low-income students, 75 percent of Latino students, 83 percent of African American students, and 41 percent of white students enrolled in the CSU in 2011 required remediation.⁸³ At community colleges, which serve 74 percent of California's postsecondary students, 70-90 percent of incoming students are identified by their college's placement process as needing remediation.⁸⁴

This huge readiness gap is costly to students, families, institutions, and taxpayers, and it is a tremendous obstacle to increasing the nation's college degree-attainment levels.⁸⁵

Lack of Preparedness Leads to Failure of Completion

Lack of readiness for college is a major culprit in low graduation rates, as the majority of students who begin in remedial courses never complete their college degrees.⁸⁶

The California Community College Chancellor's Office (CCCCO) has data documenting and illustrating the severe negative impacts of academic unpreparedness. For example, the CCCCCO 2015 Scorecard documents six-year completion rates: statewide, 69.7 percent of students whose first college English or math course is college-level earn a certificate, degree, or transfer. The percentage plummets to 39.2 percent for unprepared students whose first college course is in

remedial English or math.⁸⁷ This wide discrepancy for academically prepared vs. unprepared students holds true for all demographic and ethnic groups.

Table 3 illustrates two phenomena at the core of completion. First is the disparity by race/ethnicity in student success as measured by completion rates for community college students. African American and Latino students complete at lower rates than white and Asian students. Second, Table 3 documents that African American and Latino students who enter college prepared have *higher* completion rates than do unprepared white and Asian students.

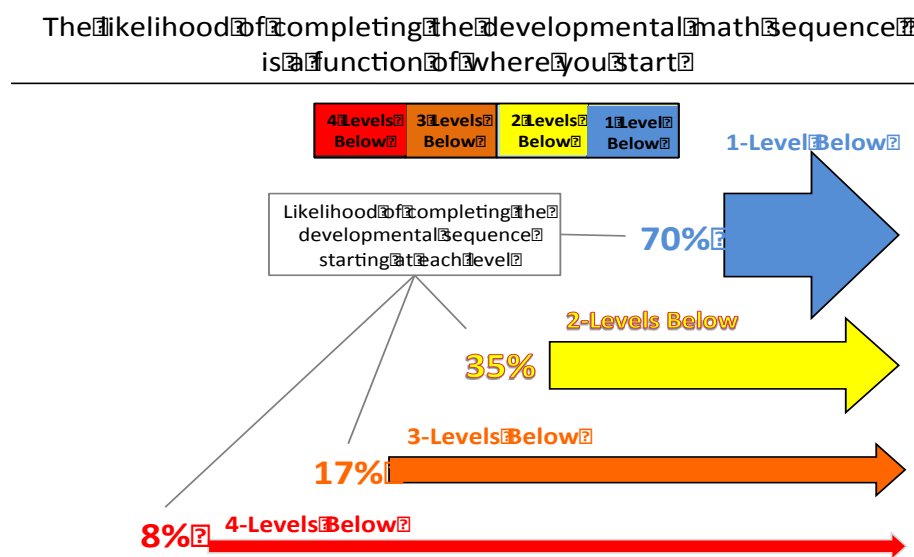
Table 3. Completion Rates for Prepared and Unprepared Community College Students

Student Group	College Prepared	College Un-Prepared
African American	63.6	32.9
Hispanic	62.7	34.2
White	69.1	41.8
Asian	81.5	55.6

Source: Data from California Community College Chancellor’s Office 2015 Student Success Scorecard.

The overrepresentation of unprepared African American and Latino students explains in part their low completion rates. In fact, the more remediation students need or are required to take, the less likely they are to complete. For example, Figure 16, using statewide data from the CCCCO,⁸⁸ illustrates that 70 percent of students who took Intermediate Algebra (which is one level below college-level) as their first community college math course completed the remedial math sequence within three years. However, only 8 percent of students who started in basic arithmetic (four levels below) managed to completed the remedial sequence.

Figure 16. Likelihood of Completing the Developmental Math Sequence by Unpreparedness Level



Source: Adapted from slide by Greg Stoup, Senior Dean Contra College.

Students who enter a lengthy remedial sequence of courses usually fail to complete the sequence. Christine,⁸⁹ a student in her third year at Fullerton Community College describes the demoralizing effect of being placed in remedial education:

We've heard for a while now how the two-year community college program is stretched into two, three, four, six years. My sister has been held back by these math programs. It is extremely disheartening... to find out I thought I was good at this but now I find out I'm not good enough...and I need to transfer....

Should students who have graduated from high school be prepared for college-level coursework without remediation?
--

Students, parents, and the public reasonably expect that a high school diploma signifies readiness for postsecondary education. This, however, is no longer the norm. California's high school graduation requirements are below college-readiness standards. This can be described as "the high school diploma-college readiness gap." Expectations in mathematics, for example, clearly illustrate this disconnect. The state requires students to take two years of math, complete Algebra I, and pass the California High School Exit Exam⁹⁰ to graduate from high school. These standards actually signal to students that they can stop taking mathematics after completing Algebra I in sophomore year. But if students wish to enroll in college-level mathematics upon completing high school, they need to reach a higher standard, and this is true for community college students as well as for students who matriculate directly to a CSU or UC.

In a seminal national study on college completion, Clifford Adelman⁹¹ identified academic intensity in high school as the most significant predictor of college completion. Yet, an analysis of high school course-taking behavior—again using mathematics as an example—illustrates that rather than increasing academic intensity and momentum as students approach the end of high school, many students decelerate. This is most obvious in the "wasted senior year." For example, in 2011-12, 44 percent of California's high school seniors took no math at all during their final year of high school.⁹²

Every year in the United States, nearly 60 percent of first-year college students discover that, despite being fully eligible to attend college, they are not academically ready for postsecondary studies.⁹³

Even students who take a full college-prep high school curriculum may find that they are unprepared for college, including a high percentage of students who have been accepted in the CSU system: this means they took the high school college-prep courses they were supposed to take to meet A-G requirements and received grades that indicated they performed reasonably well in their college-prep classes. Yet 68 percent of 50,000 entering CSU freshmen were assessed as needing remediation.⁹⁴ As noted above, the numbers of students identified as needing remediation are even higher—70-90 percent—at California's community colleges where there are no entry requirements.⁹⁵ In their study on higher education, the LWV Colorado wrote:

...education should be viewed as a totality... the delineation between K-12 education and higher education is no longer appropriate. With so many people continuing on to higher education, education should be considered a system...⁹⁶

California recognizes that preK-12 has not been adequately preparing many of California's students for postsecondary education. Hence, the Common Core curriculum and standardized statewide testing by the Smarter Balance Assessment Consortium (SBAC) have been adopted in California. These ambitious reforms explicitly link preK-12 to college-readiness. The Common Core standards and SBAC assessments should send much stronger and clearer signals to everyone—students, parents, counselors, teachers, legislators, the public—regarding college-level standards and the importance of high school as preparation for college.

Bridging the High School to College Gap

Should grade 12 be redesigned as a hybrid high school/college year, with many more students beginning remedial, transitional, and/or college or career coursework before they graduate?

Given the minimal course requirements for senior year (English and Government are the only required twelfth grade courses), the changed economy, the need for students to have some postsecondary education to earn a family-supporting wage, and the rigors and expense of postsecondary education, grade 12 appears to be under-utilizing and wasting state resources. Just as there are many ways for students to slip through the cracks, there are many ways to build bridges and pathways to college and to college completion.

Developing new high school curriculum for college readiness

In their checklist for developing college readiness, the Southern Regional Education Board (SREB) recommends a "strong focus on new curriculum in grade 12" (p.13). Some states have engaged college and high school faculty to develop transitional classes to increase the numbers of high school graduates ready for college-level coursework. For example, Tennessee has developed a twelfth grade math course taught by high school teachers that covers the material college professors identified as essential. The college placement exam is waived for students who successfully complete the course, and students are pre-qualified to enroll in college-level coursework.⁹⁷

In California, the Long Beach Unified School District and Long Beach Community College District have been leading the way in collaborating to ensure that more graduating high school students enroll and succeed in college-level coursework.⁹⁸

Earning college credits in high school

Should California expand opportunities for more high school students, especially students currently under-represented in Advanced Placement (AP) and International Baccalaureate (IB) classes, to begin earning college credits in high school, and especially in grade 12?

In many California high schools, students take AP (Advanced Placement) or IB (International Baccalaureate) classes and earn both high school and college credit in their senior and/or junior

year. While these programs mostly serve academically advanced students, there are many other models and opportunities for high school/college partnership or hybrid programs. Examples include early colleges and middle colleges where cohorts of high school students take and earn college credits together. There are also dual and concurrent enrollment opportunities where high school students, not necessarily in a specific program, take college courses either at their high school (dual enrollment) or on a community college or CSU campus (concurrent enrollment).⁹⁹ All of these models have been effective in increasing student success.

Students, including under-represented students, who earn college credits while still in high school have better outcomes in graduation rates, GPA, proficiency on standardized tests, assessment into college-level coursework, college credits earned, and enrollment into higher education, retention, and persistence rates.¹⁰⁰ A recent national survey of more than 1,600 postsecondary institutions found nearly 1.4 million high school students earned college credit.¹⁰¹ California, however, restricts access to community college classes for high school students. For example, the state imposes a cap on the percentage of high school students per grade who can take advantage of dual enrollment.

Building Career Technical Education (CTE) pathways to college and career

Should California construct multiple bridges and pathways for high school students that explore and develop career opportunities and link to postsecondary education, without replicating past discriminatory practices of tracking?

Linked Learning, or building career technical education pathways from high school to postsecondary CTE education, is another approach that has proven successful in increasing attendance, motivating students, reducing dropout rates, and increasing academic achievement. Linked Learning transforms the traditional high school experience by bringing together strong academics, a demanding technical education, and real-world experience to help students gain an advantage in high school, postsecondary education, and careers. Students have the opportunity to select among industry-themed pathways in fields such as engineering, arts and media, and biomedicine and health.

Linked Learning addresses some of the fundamental challenges facing California's high schools. Many traditional academic programs do not feel relevant to students' lives, while traditional vocational education often has lacked the academic rigor required for access to and success in college. Linked Learning provides students of all levels and abilities the chance for success in college and career. Moreover, research demonstrates that students of all demographic profiles not only have higher rates of persistence and higher graduation rates than their peers at traditional high schools, but they also often show stronger scores on state tests.¹⁰²

Career Technical Education is an important part of the California post-secondary mission, essential to developing a strong workforce responsive to economic challenges and opportunities. Building pathways that begin with Linked Learning programs in high school and continue on into Career Technical Education certificate and/or degree programs can create another avenue for students to be successful.

Connecting Non-Credit Adult Education with College and Career

Should California ensure a robust system of non-credit adult education that serves as an on-ramp to better jobs and/or postsecondary education?

California has a significant population of adults who require skills, including English as a second language, prior to being able to benefit from credit-bearing postsecondary education. Traditionally, non-credit adult education classes were offered to these populations by school districts and community college districts operating in isolation from each other. Recent legislation calls for the establishment of regional consortia, each consisting of, at minimum, a community college district and feeder school district(s), to provide the following adult education services:¹⁰³

- Elementary and secondary basic skills, including classes required for a high school diploma or high school equivalency certificate
- Classes and courses for immigrants eligible for education services in citizenship and English as a second language and workforce preparation classes in basic skills
- Education programs for adults with disabilities
- Short-term career technical education programs with high employment potential
- Programs for apprentices

The intent is for a regional collaborative and connected approach to adult education that provides comprehensive services without unnecessary duplication and fragmentation to prepare students for jobs and/or to be ready to enter more traditional credit or certificate-awarding postsecondary education.

VII. WHY THE FOCUS ON ADDITIONAL BARRIERS AND OPPORTUNITIES?

What are some of the additional factors that are barriers for students trying to successfully navigate higher education in California?

What are some of the remedies or opportunities for improving our system of higher education?

This final section describes additional significant barriers to equitable access to success in higher education and also opportunities for advancement.

Planning and Coordination for California's Higher Education System

Is there a need for an oversight body responsible for planning and alignment of a coordinated public higher education system?

A deliberative discussion of the future of higher education in California—the goals we would like to achieve and the policies necessary to get us there—is essential. ... Planning, alignment, and coordination between UC, CSU and the Community Colleges should be improved, by creating a

*higher education coordinating body to replace and improve upon the California Postsecondary Commission, which was closed in 2011.*¹⁰⁴

California's three different higher education segments—CCC, CSU, and UC—provide access to different post-secondary opportunities. In combination, these differentiated programs provide a comprehensive suite of post-secondary education to meet a wide range of individual and societal needs.

However, even though the Master Plan clearly delineated academic functions for each of the higher education segments, the system does not have sufficient coherence for students today. Students frequently experience the independence of the segments as disconnected, difficult to navigate, and costly in terms of both time and money.

Simplifying the process of moving from one education sector or level to another, including from high school to postsecondary education, by constructing smooth pathways and transfer processes could greatly improve access and success for students. Hallmarks of a more coherent system of public higher education might include:

- Mobility and portability—enabling students to move from one level, system, or segment to another with what they have learned and earned at one level recognized and applied at the next
- Smooth transitions—from one segment to another
- Choice—providing multiple pathways for access and success
- Longitudinal data system—providing the capacity to analyze system effectiveness
- Equity—ensuring participation and outcomes are independent of group status or family income

To analyze, regulate, and provide recommendations on higher education to the governor and the legislature, the 1960 Master Plan included a state-level coordinating agency as an advisory body.¹⁰⁵ In 1974, the California Post-Secondary Education Commission (CPEC) was established as the state's planning and coordinating body for public higher education.¹⁰⁶ However, in recent years, its recommendations were often ignored, and in 2011, Governor Brown eliminated the CPEC. Thus, California currently has no oversight body to provide analysis and guidance on key issues facing public higher education.

Whether the way forward involves the drafting of a new Master Plan or a more incremental process of change, California's system of higher education lacks a mechanism for systemic alignment, coordination, evaluation, and planning to identify and achieve 21st century goals.¹⁰⁷

Increasing Baccalaureate Degree Attainment

The discussion of the Master Plan, (see Section III), highlighted California's heavy reliance on the two-year community college system and the logjam students experience when seeking to earn a four-year degree. This section presents opportunities for breaking through that logjam and increasing baccalaureate degree attainment.

How can California increase access to the CSU and UC systems, especially for students of color?

Although the Master Plan is acclaimed for ensuring open access to public higher education through the community college system, the delineation of missions and enrollment restrictions of 12.5 percent of high school graduates at the UC and the 33.3 percent at the CSU have stymied students pursuing four-year degrees. Geiser and Atkinson note:

There was no educational rationale for these particular percentages except to cut costs in the short term. In the first year alone, the Master Plan diverted approximately 50,000 students from 4-year to 2-year campuses.¹⁰⁸

Johnson recommends increasing the percentages of high school graduates eligible to attend the UC and CSU by 20 percent for each sector.¹⁰⁹ This would accomplish several possible objectives: (1) expanding eligibility requirements over the next fifteen years to the top 15 percent for the UC and the top 40 percent for the CSU would increase ethnic diversity at these institutions; (2) increasing the numbers of students who enroll directly in a four-year university would increase their baccalaureate degree attainment; and (3) expanding participation rates of these students, particularly at the UC, would increase the numbers of underrepresented students of color earning baccalaureate degrees.

How can California increase baccalaureate degree attainment for students who first enroll in a community college?

California has 112 community colleges, but just 23 CSUs and 10 UCs. Increasing capacity and building new four-year public universities to meet the demand for one million new B.A. graduates by 2025 is an important strategy but probably of limited impact since it is a very expensive proposition. However, even if new four-year institutions are not built, there are other models that can create and improve pathways to B.A. degree completion, especially for the 70 percent of California students who begin their postsecondary education at a community college.¹¹⁰ Following is a list of additional strategies for increasing access to baccalaureate degrees:

Dual-acceptance policy

High school graduates apply to both their local community college and the CSU they wish to attend. By being accepted at both as they begin their postsecondary education, they have a clearly laid-out pathway to a baccalaureate degree, with no “choke point” confronting them after their first two years.¹¹¹

University centers

Some community college campuses, including community colleges in California, host “university centers.” This model provides access to upper division coursework, enabling place-bound students to complete B.A. degrees without having to leave the community college.¹¹²

University branches

Eighteen states have “university branches” where two-year campuses operate as satellites for four-year state universities.¹¹³ Students fulfill their first two years of undergraduate education at the branch campus and then have a “change of assignment” to the four-year campus. While students using this model still have to re-locate (often a major barrier for low-income students, non-traditional students, students living in rural communities, and students otherwise place-bound), this model eliminates the necessity of students having to apply to transfer midway through their progress toward a baccalaureate.

Baccalaureate degree-granting community colleges

Beginning fall 2016, 15 (out of 112) California community colleges have been granted the authority to pilot offering baccalaureate degrees in high-demand fields, joining 21 other states that permit community colleges to confer baccalaureate degrees. As of this writing, more than 50 community colleges outside of California confer more than 460 baccalaureate degrees.¹¹⁴

The legislation authorizing community colleges to grant BA degrees (SB 850) was narrowly tailored to prevent competition with the CSU and UC. Community college degrees cannot be offered if the CSU or UC offers the same degree. Nevertheless, SB 850 is a first step in providing more access to baccalaureate degrees for California's community college students. The CCC BA degrees offered through SB 850 will cost \$10,500; in comparison, tuition for a four-year degree offered by CSU costs \$22,000.¹¹⁵

How can California improve and increase transfer to and degree completion at the CSU and UC systems?

Low baccalaureate degree attainment rates are not just a problem for community college students. The CSU is facing pressures to increase completion rates and time-to-completion, and both the CSU and UC are wrestling with inequitable degree completion and with increasing access for under-represented students. Current efforts include:

For the CSU. To increase transfer, SB 1440 (approved in 2010) called for the creation of Associate Degrees for Transfer (ADTs). Requirements for ADTs have now been established for 24 different major fields of study. Each ADT program of study is restricted to 60 community college lower-level credits. All CSUs must accept ADTs and all community college students who have successfully completed an ADT are guaranteed acceptance at a CSU. To increase CSU completion rates, the Graduation Initiative 2015 proposes to raise the freshman six-year graduation rate by eight percentage points by 2025 and cut in half the existing gap in degree attainment by the CSU's under-represented minority students. Involving all 23 CSU campuses, the Graduation Initiative encourages campuses to establish graduation targets comparable to the top quartile of national averages of similar institutions and to close the achievement gap through a series of carefully planned activities. Improving completion rates for students already enrolled in a CSU is one of the most cost-effective ways to increase baccalaureate degree attainment.¹¹⁶

At the UC. Current President Janet Napolitano has embraced the creation of ADTs and has committed to establishing clear transfer degree requirements for community college students that will be accepted at all UC campuses for the twenty most popular majors. Like the CSU ADTs, clear transfer requirements valid at all UC campuses will increase the transparency and navigability of the system for community college students seeking transfer, thus increasing access and equity. A Transfer Action Team set up by President Napolitano also recommends:

- Improve communication and outreach to CCC
- Draw from a broader array of CCCs
- Strengthen and streamline transfer pathways
- Support transfers to enable them to transition smoothly and successfully
- Work with CCC and CSU to increase enrollment capacity

It is also important to remember that all UCs are not alike. Although UC data shows an increase in applications without much increase in admissions, university-wide data masks the wide disparity between campuses. For example, UC Berkeley and UCLA have an admission rate for transfer students of 25 percent and 30 percent respectively compared to UC Riverside and UC Davis with 64 percent and 60 percent respectively.

Increasing Opportunities for Career Technical Education

How can California increase access to and completion of certificate programs in Career Technical Education to meet workforce needs?

By 2025, California is projected to face a gap of 1.5 million workers with some college. "Some college" refers to students with less than a baccalaureate degree and students who have an associate degree or certificate or other skill-building training from a two-year or technical college. This level of post-secondary education prepares students for what are referred to as middle-skills jobs. These well-paying jobs increasingly demand higher levels of training and post-secondary education in Career Technical Education (CTE). During the Great Recession, CTE disproportionately suffered cuts because these programs are much more costly to provide than a typical lecture class.

In California...CTE funding is enrollment based, with the same tuition charged for all programs and the same level of funding provided regardless of a program's cost of delivery (with a few exceptions, such as nursing). Course fees are prescribed by statute. This has the effect of disadvantaging CTE, as the cost per credit hour (national average) varies widely across program areas: \$52 for humanities, \$64 for biology, \$73 for engineering-related technologies, \$131 for health and medical assisting services, \$163 for drafting and design engineering, and \$265 for respiratory care therapy.¹¹⁷

Economic and industrial differences by region also complicate the provision of high-quality CTE offerings. For example, technology is a major industry in the San Francisco Bay Area, whereas agriculture is most important to the Central Valley. The CCCCO has been promoting the funding

and coordination of high-quality CTE as a regional sector consortia effort, bringing together regional business interests with community colleges.¹¹⁸ Sustaining adequate funding for these high-cost, rapidly evolving, high-demand services is a challenge yet to be met but essential for the state's economic success.

Other Factors Impacting Student Success

What are some additional factors that are barriers for students trying to successfully navigate higher education in California?

At-risk student populations

There are a number of students who have a particularly difficult time navigating the complex financial aid system and often under-enroll as a result. These may include veterans, aged-out foster youth, rehab department grant recipients, homeless students, and first-generation college students. Instead of applying to a UC or CSU campus, many students restrict their choices to a community college. There is much discussion of the incredibly high ratios of students to high school counselors, which leaves many high school students without the proper guidance for college decisions, but those outside of the high school system also lack support. Most troubling is that without increased counseling opportunities, these populations are also the most vulnerable to the marketing campaigns of for-profit institutions that promise quick results of a certificate, degree, and job. Veterans in particular have been targeted for this purpose. As the student population changes to include aged-out foster care youth, rehab department grant recipients, and homeless students, colleges are faced with the need to provide increased services such as tutoring, peer-mentoring, and even food banks to help support both the academic and social needs of these at-risk students.

Students with disabilities

Many students in higher education have disabilities which make them eligible for specialized services. According to a report from the National Council on Disabilities:

- Approximately 11 percent of undergraduates have a disability—2 million students.
- Students with disabilities are attending postsecondary education at rates similar to nondisabled students, but their completion rates are much lower (only 34 percent finish a four-year degree in eight years), indicating the possibility of inadequate or inappropriate supports and services.
- While currently only 32 percent of working-age people with disabilities are employed, those with a college education are more likely to be employed and are earning a higher average wage than those without a college education.¹¹⁹

These are national figures; the numbers in California are somewhat lower, but the trends are similar. The number of students with disabilities who are entering higher education has increased during the last 40 years and, in addition, as the National Council on Disabilities report explains:

Returning veterans with disabilities are attending college in greater numbers, and students with intellectual and developmental disabilities are now also taking advantage of inclusive higher education programs and auditing options. Disability services offices have also expanded their definition of who is eligible to be served

since the language of the 2008 ADA Amendments Act helped clarify who is entitled to reasonable accommodations.

California Community Colleges. Services provided by community colleges to students with disabilities include learning disability assessment, test proctoring, specialized counseling, interpreter or captioning services for hearing-impaired or deaf students, mobility assistance, note-taker services, reader services, speech services, transcription services, on-campus transportation, specialized tutoring, access to adaptive equipment, job development/placement, registration assistance, special parking, and specialized instruction.

Disabled Students Programs and Services (DSPS) served 98,014 students during the 2009-10 academic year and 99,852 students during the 2010-11 academic year, with an allocation of slightly more than \$69 million provided during each of these years. In the two years prior to 2009-10, DSPS program funding was \$115 million per year. However, DSPS funding for the two years included in this report represents a cut of approximately 40 percent. At the same time, the numbers of students being served by DSPS increased for both years, resulting in the need to serve an increasing number of students with far fewer resources.¹²⁰

The CSU system. In the CSU system, according to data collected from CSU campuses during fall 2012, approximately three to four percent of students in the CSU system have a verified disability. Of these, 10 percent have mobility limitations, three percent are visually impaired, and three percent have hearing impairment. Of all students registered as having a verified disability, more than 80 percent experience cognitive disabilities such as learning disability, ADD/ADHD, and other functional limitations.¹²¹

The UC system. In the UC system, unlike the more centralized CSU system, each UC campus reports on its own disability services. UC Irvine can serve as an example of the universities; its annual report for 2013-2014 identified 2.8 percent of the student population registered with the Disability Center, a proportion similar to the CSU system. Of these, approximately 30 percent were mobility impaired or had vision or hearing loss problems while 70 percent had cognitive disabilities including psychological problems, learning disabilities, and ADD/ADHD. The number of students self-identifying with temporary or permanent disabilities had increased by 34 percent from the previous academic year. As in the CSU campuses, test-taking accommodations were the most utilized service with a 42 percent increase from the previous year in the number of students using the service.¹²²

Innovations in Curriculum, Instruction, Placement, Requirements, and Online Education

There are many additional barriers and opportunities that impact student enrollment and success. To improve student completion rates, faculty are exploring new strategies. These include offering summer bridge programs for graduating high school students, thus accelerating the basic skills remedial education sequence; offering new contextualized mathematics curriculum instead of requiring all students to complete Intermediate Algebra as a stand-alone course; using multiple measures such as high school performance for placement purposes; re-evaluating

prerequisites and degree completion requirements (such as Algebra 2 for all degrees); and promoting "non-cognitives" such as a growth mindset. The section below briefly mentions a few such innovations with great potential for improving the efficacy of California's system of higher education.

Non-cognitive skills

Many college students struggle because they lack what are often referred to as non-cognitive skills or characteristics associated with learning. Among these non-cognitive characteristics is a growth mindset as described by Carol Dweck of Stanford University. Students who believe that they can improve or grow their ability to learn are significantly more successful in college-level work than those who believe that their ability to learn is fixed. Students with a growth mindset tend to believe in themselves, are more self-confident, and thus are more willing to collaborate with others without feeling that they will be embarrassed by exposing their lack of knowledge, understanding, or skill.¹²³

Non-cognitive skills also include organizational skills, knowing how to prepare for class, being focused and listening actively in class, being able to prioritize the work that they have organized, and being able to persist in completing that work. Inquisitive students are much more likely to think critically by asking WHY. Thinking critically may enable them to assess their own learning skills and conceptual understanding, to develop ways to improve those skills and understanding, and to manage the frustration that comes with the confusion that often accompanies learning. Finally, students who are self-motivated, another non-cognitive ability, are often self-disciplined as well. These traits can be nurtured by the educational culture of an institution and its faculty and staff.¹²⁴

Curriculum and instruction

The Basic Skills Initiative begun in 2008 by the CCCCCO continues to address the problem of unprepared students through funding for various interventions to improve student performance in mathematics, reading, writing, and English as a Second Language. The interventions that have proved to be most effective include supplemental instruction, mathematics courses tied to contextualized learning, accelerated developmental education sequences, and the requirement that students take developmental courses as soon as possible.

New curriculum is also being developed. For example, in January 2015, the UC approved an experimental curriculum called Statway that was developed by the Carnegie Foundation and successfully piloted at multiple California community colleges. Statway is a college-level statistics course that does not require successful completion of Intermediate Algebra as a prerequisite. The Statway curriculum embeds the necessary Algebra within the curriculum. Students permitted to take Statway have demonstrated a much higher success rate for meeting the college mathematics requirement.¹²⁵

Under-placement

Two of the most promising innovations for dramatically increasing the numbers of students who successfully complete college-level English and math are (1) accelerating the developmental course sequence, and (2) changing the process by which students are placed into remediation.

Both of these approaches show great gains for underrepresented minority students who frequently languish and then drop out of the developmental education sequence as it has been traditionally delivered. Long Beach Community College partnering with Long Beach Unified School District has experimented with using high school course taking and GPA to make placement decisions, rather than relying on an assessment test. Using college course success rates as a benchmark, they compared outcomes for students who were placed by the traditional assessment measure with a cohort of students placed using multiple measures that included last high school course and GPA. Long Beach increased course completion in college-level work by more than 200 percent for math and more than 500 percent for English.¹²⁶ These results have spurred additional research and support sponsored by the Chancellor's Office through the Common Assessment Initiative and Multiple Measures Assessment Project.¹²⁷

Questionable requirements

The idea that an educated person must be facile in algebra is deeply embedded in our high school and post-secondary systems. Many educators believe that algebra teaches logic and abstract thinking.¹²⁸ Algebra II is the stepping stone to calculus. But even today in our high-tech economy, only five percent of the workforce actually uses calculus in their jobs.¹²⁹ Currently, all students who graduate from a CCC must successfully complete Intermediate Algebra, which is also an entry requirement for the CSU and UC. UC or CSU graduates must successfully complete mathematics beyond Intermediate Algebra. The National Center on Education and the Economy writes:

It is time for serious research to take a fresh look at what mathematics is essential for students to build competence in fields and careers of promise, and what is not. The requirements for and content of mathematics courses should focus on what is important rather than what happens to have been inherited as policy.¹³⁰

Online education

Are online programs and courses the answer to the increasing demand and loss of funding facing higher education in California? What alternatives should be pursued?

Offering courses online has been proposed as an opportunity to lower costs and deliver courses to more students across the state. It is important, however, to remember that “online learning is far from one thing—and that online learning is anything but static.”¹³¹ Research on the value of online courses for students is limited and for the most part has focused on the use of these courses in mathematics, science, and technical subjects. Online courses have been most successful with highly-motivated students. For example, a recent study at CSU San Bernardino compared student performance in online and classroom versions of the same research methodology course. Student grades were not significantly different. From the student perspective, 100 percent of the classroom students rated the learning experience as effective compared to 87 percent of online students. A study measuring student response to learning effectiveness in multiple sociology courses with multiple instructors revealed that, on the whole, students rated instructors of online classes as less effective than classroom instructors, but some instructors were better at delivering online classes while others were better in the classroom

setting. This indicates that online and classroom instruction may be dependent on both the course content and the ability of the instructor and that courses offered online should be tailored with respect to both aspects.

Types of online courses

Synchronous vs. asynchronous. In synchronous courses all students go online at a specific time and can interact with the instructor and other students by chat formats. In asynchronous courses, students go online at a time they choose, course materials are always available in either video or written format, and interaction with instructors and other students is usually by messages or videos posted at various times.

Blended or hybrid courses. These courses meet face-to-face at specified times, often at the beginning and/or end of the course, sometimes every week. Materials are available online and tests are given online or in a classroom setting.

Time-defined or continuous courses. A time-defined course has a beginning and an end, and all students enroll at the same time. A continuous course makes the materials available so students can join the class at any time and complete it at their own pace.

Flipped courses. Course materials are made available to students outside of class and students are expected to read them on their own time. Class time is spent in discussion with the instructor and other students in a chatroom or webinar format.

Closed enrollment courses limit the number enrolled, and they often require prerequisites. Class participation is facilitated through discussion lists; Web sites that allow anyone to add, delete, or revise content by using a web browser; or chat sessions. Most of these courses have tests and other assignments required. Closed enrollment courses often have a grade assigned to each student and credit given by the sponsoring institution.

Massively Open Online Courses (MOOCs) have no limit on class size and no prerequisites are required. There are usually no fees, no testing, and no grades. Ordinarily, there are no certificates given for completion of a MOOC.

Factors involved in offering MOOC courses¹³²

Costs. Once they have been designed and set up, MOOCs are relatively inexpensive on a per-student basis, but completion requires a strong commitment by the student. Dropout rates are high.

Achievement. Very little data exists to indicate how much each student learns from a MOOC because testing is seldom required.

Audience for MOOCs. Under supervision, MOOC courses can be an effective way for students to make up for deficiencies in their previous education.

Subject matter of MOOCs. MOOCs are offered both in both the humanities and sciences, but most of the research has been done with science and technology courses. Some experts

believe MOOCs are most appropriate for subject areas in which there is a well-defined body of knowledge that does not change quickly; examples are mathematics and computer science.

Barriers that might be alleviated by using online delivery

Parental and family responsibilities often make traditional face-to-face class schedules difficult and online class participation is more flexible.

Economic barriers that make transportation to classrooms and affordable housing difficult do not prevent students from using online courses. However, the expense of access to computers and to high-speed Internet may be a barrier.

Health and disability barriers can be alleviated in online courses if accessible equipment is provided.

Rural and isolated communities can be served through online courses. Courses can be offered at local facilities such as libraries, schools, and community centers. Access to high-speed Internet may be a problem in some communities.

Remedial courses may be offered online and required for students before admission to program.

Students who have difficulty in passing required courses can repeat courses online or take online courses that allow individuals to progress at their own speed.

VIII. STUDY CONCLUSION

In a recent book, *Our Kids: The American Dream in Crisis*, Robert Putnam (the author of *Bowling Alone*) laments the decline of the middle-class values of his childhood in industrial Ohio. Today, he notes, the well-off live in neighborhoods cut off from the rest of a working-class where incomes are stagnant or declining, the rates of drug use and crime are rising alarmingly, children born to unwed mothers are commonplace, and the long-held expectations of upward mobility seem a distant memory.

The American Dream “of a social order in which each man and each woman shall be able to attain to the fullest stature of which they are innately capable, and be recognized by others...regardless of the fortuitous circumstances of birth” has been a sustaining myth until recently. But did it ever actually capture the truth about American society? Other social scientists using extensive longitudinal studies have found otherwise: mobility between generations has been no higher here than in class-bound Europe. What movement there is amounts to very little; those from the working class have been especially unlikely to be upwardly mobile. Putnam’s argument is that most Americans are destined to remain in the social class into which they were born with an important exception: those who are able to complete a four-year college degree have a better chance of achieving socioeconomic mobility. Academic achievement is the factor most predictive of college attendance, and it is the critical link to the middle class “dream.”

This study has tried to indicate some of the barriers that undermine academic attainment and to suggest opportunities that could open up the clogged pathways inherent in our system of public higher education. First and foremost, California lacks a coherent system to assist students starting in K-12 to seek higher education and to understand the steps involved in obtaining it. Once prepared and enrolled, further understanding of the channels students will have to cross from the CCC system to a four-year degree, with guidance along the choppy route, are essential. Programs and services now in short supply should be expanded and more financial resources mustered to pay for them. If underrepresented minorities and first-generation youngsters are not given access to success in higher education, our future as a state will be diminished, and we will have wasted the vast potential only human ingenuity can bring to bear to solve future problems. It must not happen. The League of Women Voters of California should play its part in leading the way to a brighter future through changes in our system of public higher education.

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**STUDY OF PUBLIC HIGHER EDUCATION IN CALIFORNIA
CONSENSUS QUESTIONS**

Approved by the LWVC Board of Directors August 8, 2015

• PURPOSE

Discussion Questions: What is the purpose of California’s system of public higher education? Is it to supply an educated, competitive workforce for the state? Is it to offer the benefits of postsecondary school education to everyone capable of learning? Is it to ensure that the state will have a sufficiently large segment of well-educated citizens? Is it to develop future leaders? Is the purpose to increase opportunities for economic mobility otherwise lacking for first-generation and/or minority youngsters? Is it to continue emphasis on access and excellence as core values?

*It is **recommended** that local Leagues **just discuss** the boxed questions above and question 1(a-e), below, at the beginning of their consensus meeting. Then, after completing the rest of the consensus questions, return to question 1 and complete.*

1. Among the purposes of public higher education listed below, indicate your rating of each item’s importance:

a. to provide educational opportunities that serve the personal, professional, and/or occupational goals of students.

1. Very important 2. Important 3. Less important 4. Not important 5. No consensus

b. to provide and maintain a steady stream of leadership from all sectors of society.

1. Very important 2. Important 3. Less important 4. Not important 5. No consensus

c. to promote upward economic mobility across all population groups.

1. Very important 2. Important 3. Less important 4. Not important 5. No consensus

d. to advance the economic and civic goals of local communities and the state.

1. Very important 2. Important 3. Less important 4. Not important 5. No consensus

e. to continue to emphasize the dual values of access and excellence that were embedded in the Master Plan and are still relevant and important today.

1. Very important 2. Important 3. Less important 4. Not important 5. No consensus

COMMENTS: (100 words or less) _____

• **EQUITABLE ACCESS**

Discussion Questions: Should everyone, regardless of preparation for college, have access to higher education? To what extent should access be apportioned proportionally according to the state population, i.e., should there be a distinctive focus on such issues as gender, race, ethnicity, and age? In admissions? Enrollments? Completion of degrees? With the elimination of affirmative action policies, there are no longer statutory requirements regarding university admission. The Master Plan’s specified criteria for eligibility still hold sway and restrict enrollment at CSU and UC. Do these criteria meet the needs of California’s changing demographics? Do they facilitate a seamless transition path from the California Community Colleges (CCCs) to four-year colleges? Do they address the need for many more graduates of four-year universities?

2. Equitable access in public higher education is evidenced by:

a. an increase in the diversity of enrollment and completion rates in the CCCs, CSUs, and UCs that reflects the diversity of the state’s population.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

b. an increase in the initial freshman enrollment in both CSU and UC of qualified high school graduates from low income and under-represented minority groups.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

c. the provision of specialized services for at-risk students in higher education to facilitate their successful certificate or degree completion.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

d. a transparent and seamless transfer path from the CCCs to four-year colleges.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

COMMENTS: (100 words or less) _____

• FUNDING & AFFORDABILITY

Discussion Questions: Should tuition for public higher education be free? Currently, only the CCCs do not charge tuition although they do charge “fees” per credit. The State Universities and the University of California charge both tuition and fees with exact amounts varying from year to year due to dependence on changing allocations from the state budget. In addition to this lack of stability, there are issues of affordability for students and families, especially for those with special needs, e.g., for remediation, for assistance due to disabilities, and for those who have to interrupt their studies to seek gainful employment. Assistance through financial aid is available to those qualified, but is it sufficient? Are the tuition and fees charged an obstacle for students and families? How can students cover the full cost of attending college, which is much more than just tuition and fees? What is the state’s responsibility for assisting students for whom affordability is an issue?

3. In funding California’s system of public higher education:

a. the state should pay for all higher education tuition and fees.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

b. government and students or their families should share the full cost of attendance in public higher education based on their ability to pay.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

c. the state should provide additional funding for services for students with special needs, such as students with disabilities, aged out foster care students, and veterans.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

d. the state should provide stable and predictable funding that is sustainable, adequate, and timely to support public higher education.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

e. the state should develop additional funding streams to support public higher education.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

f. a broad based tax should be levied to specifically increase state funding for public higher education.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

4. California’s financial aid policies should:

a. ensure that higher education attendance, including tuition, fees, housing, transportation, books, or other educational materials, is affordable for all students regardless of their family’s financial circumstances.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

b. provide that student and family share of the full costs of attendance be reasonably proportionate to their discretionary income.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

c. include effective counseling to enable students to plan and access financing for their college education.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

COMMENTS: (100 words or less) _____

• PREPAREDNESS

Discussion Questions: How well are K-12 students prepared for higher education? Is there adequate counseling? Should students be able to start earning college credits while still in high school? Do students and families have sufficient knowledge about enrollment procedures and the availability of financial aid? Will the implementation of current K-12 school reforms be sufficient to prepare students to meet college-readiness criteria? Other reforms and opportunities available to assist students in mastering the requirements have been suggested. Which of these seem appropriate or useful? How essential is K-12 preparedness?

5. To increase student success:

a. when students graduate from high school, they should be prepared for college-level coursework or career/occupational employment.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

b. the state should support programs that foster coordination between and among school districts and colleges, with a focus on better utilization of the senior year of high school, to ensure that more students graduate from high school prepared for college-level work without needing remediation.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

c. California should expand opportunities for more high school students, especially students from under-represented groups, to begin earning college credits in high school, for example by taking Advanced Placement (AP), International Baccalaureate (IB), and/or dual or concurrent enrollment classes.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

d. services should be available to ensure that at-risk, low income, and under-represented minority students are advised about the wide range of appropriate career and college opportunities.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

e. outreach to disadvantaged, low income, minority, and first generation students is needed to encourage college applications for admission and financial aid.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

COMMENTS: (100 words or less) _____

• OPPORTUNITIES/BARRIERS TO SUCCESS

Discussion Questions: Limited capacity and strict adherence to the 1960 eligibility requirements for four-year colleges have contributed to California’s low baccalaureate attainment. Lack of articulation and coordination among the three sectors has also created barriers to student access and success. Many students experience barriers to enrollment and successful completion of their degrees in post-secondary education, while others lack opportunities for lifelong learning as well as training or retraining. Some reforms and opportunities have been made available or proposed to assist students in meeting eligibility requirements, such as: the use of multiple measures of assessment for entry placement status, the development of a variety of innovative curricula and instructional strategies, development of satellite locations offering B.A. degrees, and the use of new and expanding technologies. Are they enough? Are they effective?

6. California should utilize multiple strategies and models to increase baccalaureate degree attainment and coordination of the three sectors, such as:

a. increase CSU and UC enrollment capacity to serve more transfers and entering freshman.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

b. allow more CCCs to offer four-year programs with B.A./B.S. attainment.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

c. promote the implementation and evaluation of evidence-based improvements in curriculum, instruction, and placement to enhance student success and degree attainment.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

d. promote greater flexibility among the three sectors' eligibility requirements to increase student access for transfer and completion of four-year degrees.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

e. develop university centers and/or university branches to increase access to baccalaureate degree attainment.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

f. increase articulation among the three higher education sectors to construct curriculum pathways helping students to transfer smoothly to four-year colleges, for degree attainment of baccalaureate degrees.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

g. develop a longitudinal student database to track enrollment, transfer, and completion rates across all three sectors and provide feedback to high schools.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

h. expand the use of new technologies, including online education, to the extent that they expand access and success for students.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

i. provide credit and non-credit adult education courses that support life-long learning and provide opportunities for training/retraining that can lead to better jobs and/or postsecondary education.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

j. provide programs leading to Certification in Career Technical Education to fulfill labor needs and enable people to be trained/retrained for meaningful jobs that do not require a bachelor's degree.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

k. create a mechanism, such as an oversight body, to provide coordination and articulation among the three sectors, to continuously evaluate the functioning and efficacy of higher education as a system, and to provide non-partisan analysis and recommendations for improvement.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

l. maintain a comprehensive system of post-secondary education/higher education that will have viable access points for all adult Californians, including such populations as disabled students, incarcerated students, veterans, Dreamers, those seeking to re-train or change careers, and older adults.

1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. No consensus

COMMENTS: (100 words or less) _____

7. GENERAL COMMENTS: (150 words or less) Please use the space below to add any general comments or ideas about public higher education in California that were not already addressed in some prior comments, in the Consensus Questions and/or in the Study Guide.
