To Promote Economy and Efficiency

The Little Hoover Commission, formally known as the Milton Marks “Little Hoover” Commission on California State Government Organization and Economy, is an independent state oversight agency.

By statute, the Commission is a bipartisan board composed of five public members appointed by the governor, four public members appointed by the Legislature, two senators and two assemblymembers.

In creating the Commission in 1962, the Legislature declared its purpose:

...to secure assistance for the Governor and itself in promoting economy, efficiency and improved services in the transaction of the public business in the various departments, agencies and instrumentalities of the executive branch of the state government, and in making the operation of all state departments, agencies and instrumentalities, and all expenditures of public funds, more directly responsive to the wishes of the people as expressed by their elected representatives....

The Commission fulfills this charge by listening to the public, consulting with the experts and conferring with the wise. In the course of its investigations, the Commission typically empanels advisory committees, conducts public hearings and visits government operations in action.

Its conclusions are submitted to the Governor and the Legislature for their consideration. Recommendations often take the form of legislation, which the Commission supports through the legislative process.

Contacting the Commission and Copies of Reports

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This report is available from the Commission’s website.
Dear Governor and Members of the Legislature:

California needs a new Master Plan for Higher Education that will map out how the state will increase the number of college graduates, one that implements the goals set by California’s leaders through a public discussion.

By 2025, California will need 2.3 million more graduates who have earned a certificate or degree than it is on track to produce today. At least a million of those graduates need to have baccalaureate degrees. To reach that goal, California’s public and private colleges will need to produce 40 percent more graduates each year than they do today.

Although the state has started to add more money back into the system, it cannot possibly increase funding enough to allow our higher education institutions, as they currently are run, to accommodate the number of additional college students needed to meet California’s needs. The choice is simple: Either fail to educate enough students, or find a better and more efficient way to run our public colleges and universities.

California’s leaders must start the discussion about how to change the system to meet the state’s current and future civic and workforce needs with the finite financial resources it has. This will require shifting the discussion from what it costs an institution to educate each student each year to what it costs to produce a degree. California must be able to answer whether is it getting what it needs for what it is spending on higher education.

Designing a new approach is particularly difficult because of the lack of data showing how the institutions now operate. The University of California, for example, seems unable to answer basic questions involving teaching loads and sabbatical policies. And all three segments of our higher education system – community colleges, the California State University and the University of California – have so far failed to lead in the promising area of online education. There have been some recent improvements, particularly in the CSU system, but other universities, including Stanford, Harvard and MIT, have more aggressively experimented with online options. It seems as though our state, once the innovator, has become a reluctant follower. While online won’t by itself be a panacea, it almost certainly must be part of the mix as our state and nation struggle to prepare more and more young people for the jobs of the future.

Governor Brown, you have committed to higher spending levels in future years. In exchange, the California State University and University of California systems agreed to share more information about student success, freeze tuition and devote some of the increased funding to
developing more online education. In addition, you have signed into law a proposal from Speaker of the Assembly John Pérez that will help middle class families struggling to pay sharply higher tuitions.

These are important steps, but they must be part of a larger plan. California once relied on a Master Plan for Higher Education. Written more than 50 years ago, it envisioned the state’s needs through 1975. The Master Plan served the state well for many years, and provided a template adopted by countries around the world. But the California it served no longer exists.

In this study, the Little Hoover Commission lays out its case for a new Master Plan and goals it recommends should be included. The overriding goal must be to increase the number of Californians with degrees, certificates and diplomas who can meet the state’s future needs. This will not be possible without preserving the original Master Plan’s values of quality, affordability and accessibility.

A key strategy to that end is helping students already enrolled to complete their work and move on, opening up a seat for the next person. The potential for increasing completion rates is greatest at our community colleges and state universities, which together account for more than 85 percent of California students enrolled in public higher education.

In drafting the new Master Plan, California should draw from students, alumni, civic organizations, local governments and business and economic development groups, as well as from the higher education institutions themselves. Where the original Master Plan focused on setting institutional responsibilities and boundaries, the new Master Plan must be written from the perspective of what best serves students and the needs of the state as a whole.

Sincerely,

Jonathan Shapiro
Chairman
Executive Summary

After years of budget cuts, California is beginning to re-invest in public higher education institutions. While a recovering economy and added revenues generated through Proposition 30 have allowed new budget allocations, the Governor and Legislature have recognized that California cannot fund higher education as it has in the past. To a large degree, however, funding reforms proposed thus far have been piecemeal in nature. Even more troubling, these reforms have not been guided by an overarching new vision for higher education. Nor have they acknowledged what many experts in the field, educators, employers and students have long known – that previous models of California public higher education do not meet the new challenges, opportunities and responsibilities the state faces.

This is a pivotal moment for 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 and supports a thriving and resilient economy that provides broad economic and social benefits for future generations. California’s leaders must use this opportunity to reframe spending decisions in terms of what the state wants to achieve, both for its students and for the state as a whole, and what investments will best produce those results.

Governor Edmund G. Brown Jr. has set the table for a broader discussion of the future of California’s higher education and the state’s role in it. In meetings with the Regents of the University of California and the Trustees of the California State University this year, he has challenged these institutions to reassess how they achieve their mission and made plain that old funding models neither serve the state nor its citizens, present and future, nor reflect California’s long term fiscal reality. The Legislature and Governor in 2013 enacted discrete reforms. The fiscal 2013-14 Budget Act included the middle-class scholarship initiative proposed by Assembly Speaker John Pérez that aims to blunt the impact of sharp tuition increases on access.

Through the budget process, the Brown administration has increased higher education spending and, importantly, introduced a set of outcome indicators, and has required CSU and UC to provide information about student and institutional performance. These data sets will be valuable for establishing benchmarks for where the state stands in its higher
education performance, and providing a starting point for an informed policy discussion on what it wants to achieve and how to get there. This follows a set of reforms introduced in 2012 for California’s community colleges through the Student Success Act aimed at improving outcomes for community college students, who account for more than 70 percent of the state’s undergraduates.

The challenge facing the state is enormous. By some measures, California must increase the annual number of graduates it produces by 40 percent to maintain a healthy modern economy. Achieving this goal would be transformative, and would once again make California higher education a model for the world. Success, however, depends on creating a new, reliable, consistent, realistic and responsible form of financing that ensures accountability, and makes the most out of fewer resources.

The Little Hoover Commission held three hearings during 2012 and 2013 to better understand the higher education challenges facing California as it adapts to a post-recession economy. Its work in this area continues

### AB 94 Performance Measures

AB 94 outlines the following performance measures for the University of California and California State University systems:

- Number of CCC transfer students enrolled annually
- Percentage of transfer students as proportion of undergraduate population
- Number of low-income students enrolled annually
- Percentage of low-income students as proportion of total student population
- Number of degree completions annually in total, and for freshman entrants; transfer students; graduate students; and, low-income students
- Percentage of first-year undergraduates with sufficient course credits by end of first year enrollment to indicate degree completion in four years
- Total amount of funds received for all students from the state general fund, system-wide tuition and fees, and nonresident tuition and other student fees, divided by number of degrees awarded in same year; separately, same for undergraduates
- Average number of course credits accumulated by students at time they complete degrees, disaggregated by freshman entrants and transfers
- Number of degree completions in STEM fields, disaggregated by undergraduate, graduate and low-income students

The bill also requires UC to report the system-wide four-year graduation rate for each cohort of entering freshmen and two-year graduation rate for transfer students, and requires CSU to report the system-wide four- and six-year graduation rates for each cohort of entering freshmen and two- and three-year graduation rate for transfer students.
the inquiry the Commission began in 2011 into California’s community college system and builds on the recommendations it submitted to the Governor and Legislature in February 2012.

Over the course of this study, the Commission found the following problems:

- Californians are not adequately served by the current system.

- California has only recently set goals for public higher education, but it has not developed an overall strategy for attaining them.

- California is projected to face a shortfall by 2025 of one million students with four-year degrees and more than 2.3 million with degrees, certificates and diplomas needed to meet the state’s workforce requirements. Enrollments at California’s higher education institutions have not kept pace with population growth and tens of thousands of qualified California students are unable to attend public colleges every year.

- Insufficient classes, and in some cases, reported course bottlenecks, contribute to low completion rates at community colleges and four-year completion rates at CSU.

- Not enough Californians are getting to college. Many of those who attend community colleges and California State University campuses are unprepared when they arrive and take too long to attain a certificate or degree.

- Despite efforts to speed transfers and streamline the process, it still remains difficult to transfer course and unit credit within and among segments, forcing students to repeat work, which delays their progress. In the past, students who took prescribed courses at community colleges and performed well were guaranteed admission to the University of California or California State University. This is no longer true.

- The state has finite resources for higher education. The state has to figure out a way to achieve better outcomes for more students without adding more money.

- Online education is emerging as an important technology, and one that holds great promise of increasing access to higher education and the potential to lower costs. Failure to adapt
could put existing state institutions at a competitive and cost disadvantage. The Commission recognizes that there have been limited online offerings in the past, but not at the scale that will be necessary to address the burgeoning needs of the expanding technologically-savvy student body. It appears as though California is moving substantially slower than it should to integrate online because of faculty opposition and/or general inertia.

The Commission offers these recommendations to address these problems and to frame the broader public discussion that the state needs to build a new vision for California higher education.

**Recommendations**

**Recommendation 1:** The Governor and the Legislature should direct the development of a New Master Plan for California Higher Education. The New Master Plan should lay out goals and a public agenda for higher education aimed at the needs of students and the needs of the state as a whole to increase the number of Californians with higher education.

These goals should include:

- Substantially increasing the number of students who complete higher education courses with degrees, certificates or diplomas who can meet the state’s future workforce needs.
  - Reducing the average time to degree for full time students, particularly at community colleges and state universities.
  - Increasing the participation and completion rates of students from disadvantaged backgrounds.
  - Guaranteeing that college is affordable for all qualified California students.
  - Ensuring that the degrees offered by public education institutions align with the state’s economic and civic needs.

- Integrating online learning into degree programs to reduce bottlenecks, increase access to high-demand courses that fill up quickly and, where possible, lower costs.
  - Developing online classes that can be awarded unit and content credit in all institutions in all segments.
Working with existing institutions to develop four-year online degrees.

Improving efficiency to make greatest use of limited resources to produce high quality education and to maintain affordability across segments.

Recommendation 2: The Governor and the Legislature, in drafting the New Master Plan, should draw from students, alumni, civic organizations, local governments and business and economic development groups, as well as from the higher education institutions themselves.

Recommendation 3: The Governor and Legislature should encourage the drafters to think responsibly about how higher education is structured, and through the New Master Plan process, re-examine the rationale for how the three-tier system is currently organized and to explore greater campus-level specialization in all segments.

Recommendation 4: To encourage enrollment in higher education, improve higher education completion and reduce costs of remedial courses, the Legislature should provide incentives for districts and colleges to collaborate and expand counseling and outreach to middle schools and high schools in areas that have both state college campuses and community college districts.

Recommendation 5: Link a portion of funding to progress in achieving targeted goals.

Recommendation 6: The Governor and the Legislature should create an oversight body with the authority, or give the Department of Finance the authority, to obtain financial, workload and outcomes data from all institutions of California public higher education and require coordination among segments on data collection and transfer policies.

Recommendation 7: To improve transparency and public understanding of how its resources are used, the University of California should standardize its budgeting systems across campuses as well as standardize its measures for faculty workload and educational outcomes and post this data in a form that can be assessed and analyzed by the public.

Recommendation 8: The Legislature should provide incentives for developing high-demand introductory courses and bottleneck courses, such as prerequisite courses, that can be transferred for both content and unit credit to all campuses at all three segments of California’s public higher education system.
Recommendation 9: The Legislature should provide incentives for developing online courses for high-demand introductory courses, bottleneck prerequisite courses and remedial courses that demonstrate effective learning. To qualify, the course must be able to be awarded course and unit credit, at a minimum, at all California community colleges, or all California state universities, or all campuses of the University of California. Better yet would be courses that would be awarded credit at any campuses of all three segments. Courses could be designed by private or nonprofit entities according to college and university criteria.

Recommendation 10: The Legislature should develop incentives for the creation of a student-focused Internet portal that aggregates individual student records into master transcripts of classes they have taken at different institutions. The Legislature should require that sufficient privacy measures be incorporated into the portal and that California’s higher education institutions cooperate in the release of individual student data.
The Challenge: Creating More Graduates With Finite Resources

California’s ability to sustain its world-class economy and quality of civic life is threatened by a looming shortage of Californians who have some level of postsecondary education. As a state, California lacks a clear strategy to meet the pressing demand for millions of workers with at least some post-secondary education, whether that means certificates in health or career technical fields or associate of arts or baccalaureate degrees.

California has long valued creating, maintaining, and improving a public higher education system where quality institutions offer broad access to California students at a reasonable cost.

More than 50 years ago, it laid out its path to achieve that vision in a remarkable document called “A Master Plan for Higher Education in California 1960-1975.” The Master Plan was built around the need to prepare for an influx of baby boomers into the higher education system and accordingly built its funding model around expanding enrollment.

Today, the state has finite resources to devote to higher education, and cannot close the gap by funding enrollment at California’s public higher education institutions as it has under the existing model. Though the state still needs to expand enrollment, the California for which the original Master Plan was created no longer exists. The ample General Fund support that built California’s public higher education system into a national model has eroded steadily over decades.

It is time to declare the Master Plan obsolete, and call for a New Master Plan, one that reflects California’s challenges as it capitalizes on California’s many strengths, including its biggest asset, its people. By one estimate, the state will need an additional one million Californians with a four-year degree or higher by 2025 because 41 percent of the state’s jobs will require a bachelor’s degree or higher, but only 35 percent of adults will be prepared to meet this demand. That works out to an additional 60,000 baccalaureate degrees a year, on top of the 150,000 baccalaureates produced by California’s public and private colleges. A broader measure estimates that the state will need 2.3 million
Californians with at least post-graduate certificates and two-year degrees in addition to the 3.2 million the state is projected to produce by 2025.³

The global recession from which California is slowly recovering has changed California’s economy in ways that are not yet fully understood, except to underscore its need for more workers with more education. California’s booming technology sector is attracting engineers as well as marketing and financial workers from all over the country, fueling calls from leaders of the technology industry for more visas for high-skilled workers from abroad to meet demand.⁴ At the same time, low-skilled jobs are either being erased by productivity gains or leaving California.

Californians need to be prepared to participate in the state’s growth industries or risk being left behind.

**Recession Reveals Weaknesses of Current Model**

The recession delivered successive blows to state revenues, which set back California’s ability to respond to the higher education challenge. Shrinking budgets forced sharp and serial cuts in funding to California’s tripartite public higher education system. In response, the California State University and the University of California turned down record numbers of qualified California applicants and raised tuition sharply. Though CSU and UC expanded student aid significantly in absolute terms, particularly for low-income students, middle class families experienced tuition shock as the state’s funding cuts shifted a greater share of education costs to them.⁵
Many students turned away from the state’s four-year universities enrolled instead at one of California’s 112 community colleges, the entry point to higher education for most Californians. Demand for community college also increased as workers sought to upgrade or learn new skills to get a job or keep one. Despite tuition increases to $46 a unit credit, California’s community college fees are among the lowest in the nation, in keeping with its mission of broad access. To some degree, the fee increases have been offset by increased used of Board of Governors’ fee waivers, which further reduce revenue to the institution. With the students’ contribution being well below the national average, experts told the Commission that California’s community colleges lack the resources needed to offer enough classes and sections and student services to get students through.

**California Higher Education Costs Compared to Peers**

A California resident attending CSU full time as an undergraduate for two semesters in 2013-14 will pay $5,472 in tuition. In 2007-08, that same student paid $2,772. A state resident attending UC full-time as an undergraduate for two semesters in 2013-14 will pay $12,192 in tuition and fees. In 2007-08, that same student paid $6,636. Individual campuses at both institutions typically add around $1,000 in campus fees per year.

The sharp tuition and fee increases since 2008 – as much as 28 percent in a single year by CSU, 23 percent by UC – underscore the pressing need to hold down costs. Yet California’s long history of strong support for higher education has for years kept tuition and fees low compared with much of the rest of the country. Even after the recent series of steep price hikes, attending a public higher education institution in California can still be seen by some measures as relatively reasonable, especially for the community colleges and CSU.

According to the College Board, the average published tuition and fees charged in-state students at schools similar to CSU totaled $7,606 in 2012-13. Including mandatory local campus fees, CSU’s tuition and fees – around $6,600 – are still about $1,000 below the national average.

The College Board’s finding for schools similar to UC tell a different story. In-state students at public research universities comparable to UC paid an average published price of $9,539, $2,653 below UC’s published price of $12,192. Yet that number includes a number of flagship schools that aren’t considered in UC’s rank as a top-tier university.

UC and CSU sticker prices, however, compare favorably to public universities each considers a direct peer. For the 2011-12 academic year, CSU measured 15 similar institutions; its tuitions and fees remained well below 14 of them. Rutgers University topped the list ($12,755); the University of Nevada at Reno, at $6,372, was at the bottom.

UC compares itself to four other top-tier research institutions: SUNY Buffalo (the largest university in the 64-campus State University of New York system), the University of Illinois, the University of Michigan and the University of Virginia. For the 2012-13 academic year, only SUNY Buffalo ($7,989) charged less in tuition and fees than UC for an in-state undergraduate student.

The low tuition starves the system of needed resources, while subsidizing education for many students who could afford to pay more. In contrast to tuition for CSU or UC, tuition for California's community colleges is too low, David Longanecker, President of the Western Interstate Commission for Higher Education, told the Commission. By charging higher tuition, the state could generate more money for community colleges that could be used to increase completion rates, benefitting the state and students. Mr. Longanecker and other witnesses told the Commission that students in need of financial aid could qualify for federal student aid that currently is untouched, as well as qualify for federal personal tax credits, such as the American Opportunity Tax Credit, for higher education expenditures, which also can offer a refund on college costs for those who owe no taxes.6

Faced with budget cuts of more than $1.5 billion, however, the state's community colleges instead offered fewer classes. Enrollment at California's community colleges was down by more than 500,000 students in 2013 from the 2008 peak of 2.93 million part-time and full-time students. The Public Policy Institute of California estimates that the state's community colleges, which account for more than 70 percent of the state's higher education enrollment, have turned away as many as 600,000 students.7 The new budget adds money to reverse some, but not all, of this enrollment downturn.

Those who managed to enroll in community colleges found that reductions in class offerings have made it harder to finish and move on. Class sizes have grown. So have waiting lists. The community college system reported that in fall 2012, 470,000 students could not get into the classes they needed.8 In the Commission’s 2012 community colleges study, it learned that course bottlenecks in high demand courses delayed completion for students. Many students took classes they did not necessarily need for their majors to maintain full-time status, displacing students who needed the class but had lower enrollment priority.9

California's changing demographics will make the challenge of closing the graduate gap even harder: The state's public high schools are producing fewer graduates, even as dropout rates decline. The state's high school senior population peaked in 2011 at 408,811. In future years, an even greater percentage of graduating classes will need to pursue more schooling if the state is to keep up with the economy's needs, especially as comparatively better-educated older Californians retire and leave the job market.

Experts told the Commission that increasing the completion rate of community college students and improving the transfer process are two of the most important avenues for meeting the state's projected shortage
of college graduates. From a resources perspective, increasing the proportion of baccalaureate graduates who started off in community college also is the most cost-effective way of increasing the number of Californians with four-year degrees.

It is still possible for community college students to transfer to four-year public institutions, as long as they have the grades and the scores and the schools have the space. No longer, however, can California make the promise that if you start out at a community college, you can be guaranteed a place at the CSU or UC if you complete your requirements. Despite legislation aimed at standardizing and streamlining the process, a student’s transfer prospects have become less certain as California State University campuses reduced enrollment and University of California campuses began admitting more out-of-state and foreign students, who pay significantly higher tuition.

Students still find that classes they’ve taken either do not qualify for content credit or unit credit at the schools to which they want to transfer. This is a problem for community college students who wish to transfer to CSU and UC campuses, but it also is a problem for students who either are taking classes in more than one community college district at a time, or trying to get course or unit credit shifted from one community college to another.

In 2011, 51,050 community college students transferred to the CSU system, down from the 56,959 peak in 2010. Transfers to CSU hit a low in 2009 at 37,647 students, when a delayed state budget agreement forced the system to close spring admissions, the bulk of which are transfer students. The transfer dilemma prompted legislation requiring the CSU and UC to work with the community college system to design and approve transfer degrees, standardizing units and course requirements. Progress has been slow, in part because community college students are just learning about the pacts that have been approved.

California’s higher education institutions have not expanded enrollment at the same rate as the state’s population growth, nor has state spending on higher education.

On a per student basis, state funding for CSU and UC today is well below long-term averages. For UC students, General Fund spending per student has sharply declined, from about $20,000 in the early 1970s to less than $15,000 in 2008-09 to below $10,000 in 2011-12. For CSU students, state funding fell from nearly $11,000 per student in 1998-99 to $6,500 in 2011-12.
Over the past two decades, spending on higher education has been displaced in the General Fund budget by outlays for other programs, notably corrections and health care. Spending on higher education has shrunk from 18 percent of the General Fund budget in the early 1970s to 12 percent today. The Great Recession, like recessions before it, forced budget cuts that only worsened the long-term trend.

It is unrealistic to expect per student funding for public higher education to return soon to historic levels, despite the brighter prospects for California’s General Fund. Even if the state were to see large gains in revenues, the demands on the General Fund are many, and include constitutional guarantees for K-12 education, budgetary and long-term debt, transportation and water infrastructure needs, and pension and retiree health care obligations.

From the state’s perspective, the only way to meet the projected need for graduates is to increase the number of Californians who finish a given course of higher education study, with either a certificate, associate’s degree or four-year degree and reduce time to graduation so that a graduate can more quickly free up space for students on the way up – without vastly scaling up the existing higher education infrastructure. It may mean making more sections of high demand classes available, in person or online, so that students blocked out of classes they want do not have to take classes they don’t want simply to remain eligible for scholarships, grants and loans. The state simply does not have the money to reach projected needs by looking at education spending on a cost-per-student basis.

Former University of California President Mark Yudof acknowledged the need for change when he told the UC Regents that the university had “hit a wall” with traditional methods of instruction, and that the days of meeting access and enrollment demand by expanding the “brick and mortar” environment were over.13

The discussion of educational costs has been clouded to some degree by the increases in tuition and fees at all three segments of public higher education. Education finance experts, however, say that the tuition increases to a large degree reflect cost-shifting to students and their families to backfill, at least partially, reduced state contributions. Until this year’s budget augmentation, the state reduced allocations to the community colleges, CSU and UC, though it increased allocations for student aid. Both CSU and UC have used their resources to increase student aid, in part funded by revenues generated by higher tuition.
The Delta Cost Project, sponsored by the American Institutes for Research, since 2007 has been examining rising higher education costs, and has found that public universities have aggressively managed faculty and related education costs by increasing class sizes and relying more heavily on adjunct faculty and lecturers in the place of tenured faculty. Still, like other large public institutions, California’s higher education institutions face rising costs, particularly for health and pension benefits, significant drivers of personnel cost increases. Separating out research-related costs, the project found that while the largest single component of educational costs are for faculty salaries and departmental support, nearly half of spending is for overhead or indirect costs, which include student support services such as counseling, libraries and computer centers, but also maintenance of grounds and utilities.

These cost increases faced by higher education will eat into budget augmentations expected over the next four years. Given the commitment to refrain from further fee and tuition increases – at least in the short term – these internal cost drivers put a premium on the institutions’ ability to find efficiencies as well as find new ways to deliver high quality education if they are to increase the number of students they graduate.

After five years of austerity, deferred maintenance, layoffs and furloughs, finding new approaches will require a comprehensive rethinking of how California delivers public higher education. That process already has started and the proposals and discussions over the past 12 months suggest that the institutions are moving out of the defensive stance forced on them by budget cuts and beginning to engage the far more difficult challenge of remaking higher education. Such efforts necessarily will have to go far beyond programs like the “Working Smarter” drive within the UC system, even though it has saved many millions of dollars.

Though ultimately not included in the budget, Governor Brown’s proposal to link budget increases to improvements in graduation rates creates the opportunity to reframe higher education financial analyses in terms of “cost per degree” rather than “cost per student,” a shift advocated by two experts in higher education financing, Rita Kirshstein, director of the Delta Cost Project, and Jane Wellman, the project’s founding director and now executive director of the National Association of System Heads. The focus on cost per student, they said, tends to

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**Middle Class Scholarship Initiative**

Governor Brown signed the Middle Class Scholarship Initiative (AB 94), proposed by Assembly Speaker John Pérez, in July 2013. A response to sharp increases in UC and CSU tuitions, the scholarship pays for 40 percent of UC and CSU tuition for students whose families annually earn less than $100,000 and provides scholarship funds on a decreasing sliding scale for families with incomes between $100,000 and $150,000. To be eligible, students must meet all of the Cal Grant program requirements, except for the income and asset test, and have a GPA of at least 2.0. The bill will be phased into effect, with full implementation in the 2017-18 school year.

emphasize revenue rather than on the cost-effectiveness of dollars spent. Though performance-based funding was not included in the 2013-14 budget, with the inclusion of outcome measures, the discussion will be able to start from a common set of statistics.

Since the start of 2013, all three systems have welcomed new leaders. This presents an opportunity for the three segments to reassess the question of how they can use their existing resources more intensively, or differently, to increase the number of students who complete a given course of study while maintaining quality.

Though all three segments have had an ongoing focus on raising completion rates, the question has revived discussion of ideas such as three-year bachelor degrees, expanding or requiring summer term participation, greater use of “challenge” examinations, unit caps, a reexamination of unit requirements for degrees, redesigning courses, online learning and re-examining faculty workloads. Few of these ideas are new; most have been recommended over the years by committees or taskforces from within the institutions themselves.

The issue of faculty workload has particular implications for University of California faculty, given UC’s established role as a research university and the UC’s expectation that faculty not only conduct research and teach, but devote time to public service and to university activities as well. Participation, and accomplishment, in such activities is factored into tenure decisions. Getting detailed system-wide data on UC faculty workload and related information, however, such as numbers of professors granted tenure, sabbatical statistics and patterns, and classes taught per professor, is not easy, complicating any kind of analysis of how efficiently the UC is using education resources. The delayed response to Commission requests suggests that some of the data is not readily at hand. UC and CSU officials, by contrast, were prompt to supply educational data they regularly compile. The UC, for example, does not keep system-wide statistics on courses taught by faculty member, though it can provide estimates. Rather than courses taught per faculty member,

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**Working Smarter**

UC adopted its Working Smarter initiative in 2010 with a goal of redirecting $500 million dollars over five years from administrative costs to its research and academic missions through cost savings through increased administrative efficiency. The initiative’s leaders envision the 10 University of California campuses unified under one administrative framework, no easy task in a system that often operates more as a balkanized federation. The initiative’s 34 advertised projects range from streamlining and modernizing the university’s admissions process to creating a web portal that enables campus users to obtain insurance coverage for on-campus events, to building an integrated procurement network.

UC reports that the initiative already has generated $200 million in cost savings and $89.4 million in revenue, taking it more than halfway to its $500 million goal.

UC uses a measure of student credit hours per ladder faculty member, which it says is a better measure. By that measure, the number of student credit hours has increased, from 693 in 1990-91 to 782 in 2010-11, a 12.8 percent increase. The number increased 10.5 percent between 2005-06 to 2010-11, a period during which student-faculty ratios also increased, due to increasing enrollment and reduced full-time faculty hiring.

According to the UC, it has not done a system-wide assessment of how faculty members allocate their time since a joint effort by the Academic Senate and the UC Administration in the late 1970s and early 1980s. The studies showed that faculty worked 61.3 hours during a seven-day week during the academic year when classes were scheduled.

While recognizing faculty members’ responsibilities for research and public service, more up-to-date information on allocation of faculty time and a standardized system-wide accounting of sabbatical time and other indicators of how educational resources are used are essential to making an assessment, either by UC administrators or external reviewers, of how efficiently the system is using its resources. Otherwise, it finds itself vulnerable to not living up to its motto of “Let There Be Light,” or supplying the same level of transparency it expects in its world-class research.

In terms of scale and potential for improvement, the issue of completion rates has greater resonance for California’s Community College system and the California State University than for the UC. With 2.4 million students, California’s community college system is the largest in the nation. CSU’s 23 campuses educate 435,500 students, the largest four-year university system in the world. Together, the two systems account for more than 90 percent of the state’s public higher education enrollment. Both systems serve a large population of Californians who are the first in their families to attend college, are English learners and who come from low-income backgrounds. By comparison, the University of California accounts for less than 10 percent of the state’s undergraduate students and because of the selectivity of its admissions process, its students are better prepared and more

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**College Presidents’ Recommendations**

A report from the National Commission on Higher Education Attainment, a group of 18 college presidents that included former CSU Chancellor Charlie Reed, calls improving college completion “an economic and moral imperative.” Issued in January 2013, the report says universities should undertake a number of measures to increase retention as well as speed the time to degree. Key recommendations:

- Create assessments to measure and give credit for learning acquired outside the classroom.
- Provide increased support services for nontraditional students.
- Train teachers to teach better.
- Use technology to deliver courses more efficiently.
- Offer flexibility to working adults.
- Ease credit transfers.
- Encourage competency-based learning programs.
- Make better use of data to identify at-risk students.

motivated; completion rates are significantly higher – 60 percent after four years and 83 percent after six years. The two-year graduation rate for transfers who arrived in 2009 was 53 percent. Of the transfers who enrolled at UC campuses in 2007, 85 percent graduated within four years.\(^{17}\)

For the 23-campus California State University System as a whole, only 16 percent of CSU students graduate within four years; 51 percent graduate within six years for the cohort that started in 2006. Among comparable institutions,\(^{18}\) using the most recent national-level data from the 2005 cohort, CSU sits at the median for both four-year and six-year graduation rates.\(^{19}\) Among community college students who transferred to CSU as sophomores, based on the 2007 cohort, 25 percent graduated within two years, while 66 percent graduated within four years of arriving at a CSU campus. That marks an improvement from the CSU cohort that began in 2001, which posted a 14 percent four-year completion rate and a 46 percent six-year completion rate.\(^{20}\) CSU has had a graduation initiative in place since 2009 and new Chancellor Tim White has committed to improving retention and increasing graduation rates for the 2009 freshman cohort by six percentage points.\(^{21}\)

As a result of the Student Success Act of 2012, California’s Community Colleges now produce an annual performance “scorecard.” For the six-year period that includes the 2011-12 academic year, the system as a whole reported a completion rate of 49 percent for degree-seeking and transfer students who had been enrolled for six years, down from 52.3 percent for students first enrolled in 2002-03. Among those who were prepared for college level work, as measured by placement tests, the rate was considerably higher, 71 percent. For those who needed remedial work, the rate was 41 percent.\(^{22}\)
Using the same yardstick as used for CSU and UC, or how many students finished with a degree, transfer or certificate within three years rather than two years, the percentages were far lower. *The Chronicle of Higher Education*, using U.S. Department of Education statistics, estimated that California community colleges graduated 25.3 percent of their full-time students within three years in 2010, exceeding the national average of 20 percent for the same cohort.23

The contributors to low completion rates are many, and considerable research has been done to both identify key factors as well as strategies for improving outcomes. Budget cuts that eliminated classes and support services have exacerbated the problem. Both the CSU system and California’s community colleges enroll large percentages of students who need remedial classes in order to take on college-level work. In addition, many students, some of them parents, work full or part time; students taking fewer than 12 units a term represent well over half of all enrolled community college students.

The six-year completion rate of degree and transfer seeking community college students masks the number of students who attend for one year, then do not return, or earn 12 units and go no further. While some of these students may have taken the classes they need to move to a better job, and have no immediate need to pursue further course work, many others enter with aspirations of achieving more, but for a number of reasons, fail to stay in school.24

A 2009 study by the Institute for Higher Education Leadership and Policy provides a sense of the dimensions of the issue. The study tracked a cohort of first-time California community college students enrolling in 2000-01 over a period of seven years. Of those who stayed enrolled for at least two years, many made significant progress toward earning a certificate or completing a degree, but ultimately failed to do so. About 62 percent completed at least 12 or more units of college level credits; more than 40 percent completed 30 or more college level credits – half way to the transfer requirement of 60 credits. Only 3.3 percent of students earned a certificate and only 7.9 percent earned an associate’s degree while enrolled at a community college. Nearly 23 percent transferred. A 2007 report from the California Postsecondary Education Commission produced similar findings.25

“Educational attainment in California has been declining with each younger generation – a statistic that bodes poorly for the state’s economic competitiveness. It is essential to increase educational attainment among the Latino population, as current levels are relatively low and the Latino share of the working age population in California is projected to grow from 34 percent currently to 50 percent by 2040”.

Source: Divided We Fail: Improving Completion and Closing Racial Gaps in California’s Community Colleges
An important reason so many students enroll then drop out is that they are not prepared for college-level work. The Commission, as part of its 2012 study on community colleges, learned that as many as 90 percent of all incoming community college students arrive unprepared for college-level math while about 75 percent are not prepared for college-level English. For CSU system-wide for fall 2012, roughly 30 percent of regularly admitted first-time freshmen were not proficient in math while a third were not proficient in English.

For community college students, the 30-unit threshold is the minimum required to show a marked lifetime economic benefit from higher education. Research by CSU Sacramento’s Institute for Higher Education Leadership and Policy shows that only 40 percent of degree-seeking community college students attained 30 units; fewer Latinos (35 percent) and African American students (28 percent) reached this milestone. The 30-unit milestone also is seen as an important threshold for sustaining the momentum to complete a program or degree. Yet fewer Latinos who have reached that point go on to complete a degree or transfer compared to whites, Asian-Pacific Islanders or African Americans. As Latinos become a larger percentage of California’s working population, ensuring that more Latino students enroll in higher education programs and complete them is critical to meeting the state’s economic needs.

Improving completion rates is an obvious start toward meeting the state’s need for greater postsecondary attainment. In its 2010 assessment of how to update the Master Plan, the Public Policy Institute of California found that “increasing the completion rates of students already in the state’s public universities is the least-
expensive way to generate new college graduates, since these students already are in the system.”

29 This effect could be particularly powerful if increased community college completion led to greater levels of transfer students who completed baccalaureate degrees.

Robert Shireman, director of California Competes, told the Commission that by closing the achievement gap between whites and Asians and Latino and African-American students in California community colleges, the state could produce an additional 790,000 four-year degrees, moving California a third of the distance it needs to meet the 2025 attainment goal.

30 “We send a larger proportion of our high school graduates to community colleges than any other state, so it is essential that they help guide students and offer the courses they need so students can move on and open up seats to new high school graduates and adults,” Mr. Shireman testified.

Though not a new variable in the equation, the role of online education emerged as a hotly debated approach to increasing the reach of higher education and reengineering how higher education is delivered to students. Academics from the top echelons of higher education launched companies, some for-profit, others not-for-profit, that offered Massive Open Online Courses (MOOCs) that provide interactive learning on a broad scale. Harvard University and the Massachusetts Institute of Technology formed edX, which quickly attracted the involvement of UC Berkeley. Sebastian Thrun, a Stanford University Professor and Google fellow, formed the for-profit Udacity, while another Stanford professor, Daphne Koller, formed Coursera, a for-profit company that created a platform for MOOCs. Udacity launched a much-watched pilot with CSU’s San José State University, which has been an aggressive innovator in introducing technology into higher education.

While the prospects of greater online delivery of courses are undeniably exciting, lost in the hyperbole from both MOOC proponents and detractors was the extent to which universities have long engaged in distance learning and online programs. As the debate progressed, more academics asked for an exploration of how online courses engaged first-generation students, or English-language learners, or students with remedial needs, or low-income students with restricted access to computers at home or to speedy broadband Internet access. Taken together, these students make up a large portion of the populations served by California’s community colleges and CSU campuses, and are the very students California needs to be successful if it is to boost completion rates.
The San José State pilot, which involved online-only math and statistics courses, was put on hold temporarily for retooling due to low passing rates. The pilot involved San José State professors and Udacity designers creating wholly new online courses, which differed from the university’s separate edX pilot that integrated technology and online components into existing courses. The early Udacity pilot results may have been influenced by the mix of students who participated in the pilot, a fifth of whom were high school students; many of the university students taking the course previously had failed. The Udacity pilot was criticized by university faculty members, who, like many of the faculty at many other higher education institutions, warned that it is not appropriate for all students or all subjects. Subsequent pass rates for the summer term were higher in the online courses than in comparable on-campus classes, though more students dropped the online courses during the summer than in previous terms. The pilot generated criticism from online proponents as well, who pointed to differences in class composition from one term to the next, which they say make comparisons meaningless.

The interim results hardly offer a verdict on the concept. They do, however, offer lessons on how the courses can be improved to increase student success. Among the approaches already employed are “flipped” models and blended models. The first combines online lectures with in-class discussion and labs, while the latter term covers a broad range of approaches that integrate online components and in-person discussion.

Over the course of the 2013-14 budget negotiations, the community colleges, CSU and UC agreed to devote some of their increased allocations to developing online courses to target high demand and bottleneck courses. Governor Brown ultimately vetoed part of his administration’s own earmarking of funds for online development, acknowledging that the earmarks amounted to the kind of funding restrictions he generally seeks to avoid.

The debate surrounding online education has taken place through negotiations, position papers, press releases, often-breathless media coverage and, from faculty groups nationwide, high-dudgeon rejection of the MOOC concept. While it is clear that online education is here to stay, it is not at all clear what forms it will take. It could increase access and lower costs. Failure to adapt could put existing state institutions at a competitive and cost disadvantage. It appears as though California is moving substantially slower than it should to integrate online because of faculty opposition as well as institutional inertia. The topic would benefit from a more reasoned and rigorous approach, one that integrates it into the broader discussion of the state’s goals for higher education.
The Commission urges faculty groups, not only academic senates, to engage in this discussion of online education proactively rather than reactively, and to focus on faculty’s role in developing content, rather than the delivery platform. As they do so, they need to be mindful of student transfer needs, and develop online courses that can be accepted for course and unit credit at all campuses within a segment, and ideally, across segments.

New technology is challenging, no question, even in the cases where it creates great value. In rejecting the MOOC model, faculty groups risk sideling themselves just when their input is essential. Each segment has ventured into online education. The question, given that the existing model for public higher education is financially unsustainable, is whether California’s higher education segments can be aggressive enough on their own. Their actions over the past year suggest they have not been aggressive at all, rather quite the opposite, and have been reluctant to embrace outside approaches. Truly maximizing the benefits of online education will require acknowledging that resisting change rather than shaping it is a greater threat to the status quo.

In this debate, and in the broader discussion of California’s higher education future, the state has sorely missed the existence of a coordinating body like the one envisioned by the Master Plan. Experts told the Commission that California needs a replacement for the Commission on Post-Secondary Education that, at the very least, could collect and analyze data about the state’s higher education needs and the performance of its higher education institutions. Such a body also could provide a forum for discussions about the state’s higher education goals, and provide oversight and accountability for progress toward those goals. The Brown Administration eliminated the California Post-Secondary Education Commission but indicated that it would be replaced. Now that the community college system has started its Student Success Scorecards, and the state expects CSU and UC to provide annual reports on performance, it is time for the discussion about what that replacement will look like.

In the following sections, the Commission offers its recommendations for pursuing a New Master Plan, as well as recommendations on steps the Governor and Legislature can take now.
Need For New Master Plan

For the last 50 years, California’s leaders have relied on the 1960 Master Plan for Higher Education, a 15-year road map that laid out the respective roles of each of California’s higher education segments. It served California well for more than two decades, longer than its drafters envisioned, and provided a blueprint for other states and countries for thinking about an integrated approach to public higher education. But the California for which it was designed no longer exists. Now the state faces challenges not anticipated by the 1960 Master Plan.

Master Plan History

The Master Plan for Higher Education was created to help California accommodate an expected surge of Baby Boom students and veterans seeking to exercise the G.I. Bill. At the time, the state had a more homogeneous middle class, expectations of further growth and comparatively more money, due in part to a strong defense industry-fueled tax base and a robust housing sector. The document was designed to establish roles and delineate boundaries among segments.

Aspirational goals of access and affordability were enabled by the transfer goal, though segments were not held accountable for results. Tuition was to be kept low by design to promote access. The top eighth of the state’s graduating seniors would be eligible for the UC; the top third would be eligible for CSU, and community colleges would be open to “all who could benefit.”

Central to assessing the 1960 Master Plan is an understanding of how it came about and who played key roles in developing it. Prior to World War II, the State Board of Education and Superintendent of Public Instruction had oversight of the community colleges, then part of local high school districts. The state colleges essentially operated independently of each other under the influence of their autonomous college boards and administrations. The University of California, under the UC Regents, was independent with the constitutional mandate to both teach and conduct research. The capacity of state colleges, most designed to be “normal schools” to produce teachers, varied widely.

California’s leaders knew well before World War II that its higher education system would have to grow rapidly and sought to resolve the
threats that political and regional competition presented to the state's overarching goal of providing universal access to higher education through efficient planning and coordinated growth.\textsuperscript{31} The Carnegie Foundation for the Advancement of Teaching, in a 1932 study commissioned by the Legislature, found that weak organization and policy had produced overlapping functions as well as waste and inefficiency. Carnegie researchers found “a lack of articulation among the various units of the educational system. This has resulted in vigorous controversies over admission requirements, transfer regulations, and curricula. These controversies are aggravated by regional rivalries and local ambitions.”\textsuperscript{32}

Over the next decades, the policy vacuum continued even as the Legislature created the State Council for Educational Planning and Coordination and a Liaison Committee formed in 1945 by the Board of Education and the University of California.\textsuperscript{33}

Until then, the University of California had felt little competition from the state colleges. But after World War II, California's state colleges started expanding their ambitions and missions. These ambitions included the research that UC – fueled by defense research contracts – held to be its exclusive purview. With the state's post-war population boom came requests to the Legislature to build new state colleges. In 1957, the Legislature received requests for 17 new state colleges. Of the four that were approved, none were on the priority list proposed by the Liaison Committee.\textsuperscript{34} The growing number of state colleges created a second tier of higher education, with its own political base, further expanding the potential challenge to UC's sole research role.

As historian Kevin Starr describes it in \textit{Golden Dreams, California in an Age of Abundance, 1950-1963}, the situation reached a crisis in 1959, with too many requests for new campuses, a lack of a clear administrative structure for the existing state colleges, and the potential to waste resources by allowing two systems to develop in competition.

The Legislature called on the Liaison Committee to develop a master plan and report back by the 1960 legislative session. The Liaison Committee appointed a group of higher education leaders from all three segments, chaired by Occidental College president Arthur Coons, though the plan's chief architect and lobbyist was his close friend, University of California president Clark Kerr. The result, \textit{A Master Plan for Higher Education in California 1960-1975}, called for establishing a separate board of trustees that became the California State University, establishing admissions guidelines for each segment and preserving the UC's status as the state's research university and main producer of doctoral degrees. The plan called for the creation of a Coordinating Council for Higher Education,
which later became the California Post-Secondary Education Commission, since eliminated.

The state colleges were given independence from the Board of Education while the plan made it clear that the community colleges were an integral part of California’s higher education strategy, not an appendage to the K-12 system. The Legislature benefitted by shifting the task of deciding where to locate new campuses to the coordinating council the plan created. The plan contained costs by concentrating growth in the community colleges and restricting the scope of what each segment could do, and relied on the transfer mechanism to bolster cost-effective access for those headed to four-year degrees.

John Aubrey Douglass, a Senior Research Fellow at UC Berkeley’s Center for Studies in Higher Education and a Master Plan scholar, points out that the Master Plan’s allocation of high school graduates to the three segments was never included in statute, and the plan does not guarantee a no-tuition system. The plan was more important for what it preserved – the tripartite system – and what it prevented – a super-board of higher education over all three systems.35

**California Changed, But Didn’t Change the Plan**

In providing a blueprint for California’s 300 percent gain in public higher education enrollment, the plan served California well for more than two decades. It also put the state at the forefront of higher education policy worldwide by offering a template for universal access to higher education. By the 1990s, however, community and institutional pressures pushed aside planning based on population growth and regional needs, returning higher education to the politicized climate that existed prior to the Master Plan.

Why did the Master Plan stop working? Patrick M. Callan, president of the National Center for Public Policy and Higher Education, describes the plan’s unraveling in a chapter of a soon to be published book submitted as testimony that focuses specifically on California.36

Mr. Callan pointed to three main factors that emerged starting in the late 1970s.

- **Unstable, constrained public finance combined with political volatility:** A tax revolt that resulted in Proposition 13 in 1978, constrained the previously robust growth in state and local tax revenues. The state’s subsequent overreliance on income, capital gains and sales taxes left
the state’s General Fund acutely vulnerable to economic downturns. As a result, each recession produced budget cuts that led to sharp reductions in community college enrollments as well as cutbacks in state university enrollments.

- **Demographic shifts:** California’s population changed significantly in the years after the Master Plan was unveiled. Key factors were the rate of population growth and its size, which simply outstripped the rate of growth of the state’s higher education resources. Equally important has been the transformation of California’s rapidly growing population from mostly white – more than 90 percent in 1960 – to a multiethnic state where no one group is in the majority. Since the 1970s, most the migration has been from Latinos, Asians and Pacific Islanders. More than a quarter of the state’s population now is foreign-born. In California’s public schools in 2010, half the students were Latino; whites accounted for 27 percent. Asian/Filipino/Pacific Islanders made up 14 percent of the state’s student body, while African American students were 7 percent. American Indian and Alaskan Natives made up less than 1 percent of the total. Many of these groups do not participate in higher education in numbers that reflect their share of the population.

- **A decline in the effectiveness of public schooling:** At the time the Master Plan was developed, California enjoyed a reputation for high quality public education, ranking above the national average in per-student spending. Its teachers were among the nation’s best educated. Major changes in state finance, including property tax equalization, the tax revolt, and greater pressure to pay for health care and corrections, reduced the growth in school revenues – and reduced California’s relative ranking in school spending. School and societal demographics also changed, as did the labor relationship between schools and their teachers. By 2010, national assessments of student performance showed that California public school students scored far below the national average in math and reading. In a 2008 state estimate, only 28 percent of California’s high school graduates were prepared for college level work.

Mr. Callan writes that the state’s failure to plan for predictable enrollment growth has been at least as problematic as its response to
downturns in the economy. Absent a plan to provide a stable funding foundation for higher education, one of the state’s key assets in generating wealth and social mobility was chained to California’s boom-and-bust economic cycle.

The most significant, and apparently permanent, departure from the Master Plan has been the retreat from its foundational public policy commitment to college opportunity – that is, its commitment to make higher education available for every Californian who could benefit from college. This historic obligation undergirded the differentiated missions and admissions policies of the three public sectors. But it is a promise that the state honors only in the best of times, and subtly sacrifices in years of budget problems. Between 1960 and 1980, the Master Plan commitment to access was California’s most fundamental public policy. Since the 1980s, however, this commitment has eroded steadily, often without public discussion or deliberation.37

Mr. Douglass said the plan also failed to anticipate how the health of one segment would affect the system as a whole, pointing to what he calls the dysfunctional funding system for community college together with the state’s heavy reliance on community college as a low-cost option. For example, the Master Plan anticipated that community colleges would handle about 55 percent of all higher education enrollment; today community colleges account for more than 70 percent of California’s college students.38

**A New Master Plan**

Five decades later, California has an even greater societal need for more Californians with more education, as it no longer can depend on imported college graduates for meeting the economy’s needs. The state does not have the money to substantially expand its higher education system, and fewer California high school graduates who could fill expected employment demand for educated workers are pursuing higher education. Those who do apply are finding that because of budget cuts, CSU and UC have been turning away California students. Community colleges also are turning away students, and those who enroll are finding they cannot get the classes they need because of reduced class offerings. While completion rates are high at UC, they are far lower at CSU campuses, and lower still at community colleges.

California’s higher educational institutions now are mature, with large administrative staff, and do not easily adapt to change. They have high and increasing employment costs as their pension and health benefit obligations have grown. Because the state failed to lay out goals or desired outcomes for UC, CSU or the community colleges, the segments have not been accountable for results. Today, the specter of competition
is no longer from the other segments, but from out-of-state colleges and private providers that rely on student loan financing and Massive Open Online Courses, or MOOCs.

It is long past time to declare the old Master Plan dead. It effectively died many years ago. It is long past time to create a New Master Plan.

There have been several efforts at updating the Master Plan, the most recent being the 2010 effort by the Legislature’s Joint Committee on the Master Plan for Higher Education. It followed formal efforts requested by the Legislature in 1973, 1987, 1989, 1993 and 2002.

The most significant changes to date came from the 1973 review, with the creation of the California Post-Secondary Education Commission in the place of the Coordinating Council for Higher Education, and the 1984 and 1987 studies, which initiated the drive to make the state’s public higher education institutions student populations more closely resemble California’s overall population.

In the 2010 effort, the Joint Legislative Committee on the Master Plan, after a year of work and hearings, produced an agenda for public higher education in California. The agenda was planned as the starting point for further hearings and legislation, but the effort lost momentum as state revenues fell, forcing the state to reduce funding for higher education. The committee’s report, designed as a first installment on what was to be an on-going project, was able to describe general goals that could garner bi-partisan consensus. Taking the next step of developing more specific goals, and acknowledging the cost of achieving those goals, proved far harder, particularly in light of the state’s budget problems, and when one of the committee’s co-chairs, Ira Ruskin, termed out of the Assembly, the effort lost momentum. In the end, the administration and Legislature faced greater pressure to use shrinking General Fund dollars on other, less flexible parts of the budget, such as corrections and K-12 education, where spending decisions are driven by court orders or proposition-generated requirements.

The public subsidies required to meet the committee’s goals of universal access to a quality higher education for all eligible students, and the financial aid to make it affordable were far greater than the General Fund could supply, one participant recalled: “The solutions became flood it with money or try to deal with the structural problems at the state level that go to the bigger issues of needing to modernize our revenue system.” The bigger issues also include institutional factors, such as constituencies within the universities that are resistant to change, governance issues that in their extreme form are being played out in the accreditation controversy at the City College of San Francisco.
A larger effort to revise the Master Plan, in 2002, aimed to reform both higher education and K-12 education. The effort produced a lengthy report with more than 170 recommendations, in part due to an effort to appeal to as broad an audience as possible, according to one participant, often at the expense of support for the overall plan. The resulting document called for mandatory full-time kindergarten, universal access to pre-school, eliminating the Board of Education and shifting authority

### Legislative Reviews of the Master Plan

**1973: Report of the Joint Committee on the Master Plan for Higher Education.** Asked to study the development of a new master plan, the joint committee’s report highlighted problems of coordination. The major outcome of the review was the replacement of the Coordinating Council for Higher Education with the California Post-Secondary Education Committee.

**1986: The Challenge of Change: A Reassessment of the California Community Colleges.** The blue ribbon commission’s report contained 68 recommendations that informed the Joint Committee for Review of the Master Plan’s 1987 report, “Building California’s Community Colleges,” the first of two master plan reviews commissioned by the Legislature in 1984. Focusing heavily on the mission, function and governance of community colleges, these recommendations became the basis of the 1988 Community College Reform Act (AB 1725). The act required the development of a core curriculum transferrable to the University of California and California State University segments, and, along with other regulations, created a shared governance system to include administrators, faculty, students and other groups.

**1987: The Master Plan Renewed: Unity, Equity, Quality, and Efficiency in California Postsecondary Education.** The second of the Master Plan studies tasked in 1984, the commission’s 33 recommendations were centered on improving the quality of and access to higher education for all Californians. The commission reiterated key themes from the 1986 community college report, declaring that the transfer system had been allowed to “atrophy.” Additionally, it recognized the linkage between higher education and primary and secondary education and acknowledged accredited private institutions as additional segments in California’s higher education system. This report served as the basis of the Joint Committee’s 1989 report, “California Faces, California’s Future: Education for Citizenship in a Multicultural Democracy,” in which the Joint Committee framed its 55 recommendations within the context of California’s growing diversity and increasingly global business environment. A series of bills were passed to implement recommendations, including the 1991 omnibus AB 617 (Hayden).

**1993: Master Plan for Higher Education in Focus, “Draft Report.”** In 1993 the Assembly conducted a reassessment of the Master Plan in light of three years of austerity resulting from recession. The Assembly Committee on Higher Education created a draft report that was never adopted.

**2002: California Master Plan for Education.** Recognizing that a student’s post-secondary success began long before he or she graduated from high school, the Senate passed a concurrent resolution in 1999 calling for a new Master Plan for kindergarten through university. The Joint Committee to Develop a Master Plan for Education released its 56 recommendations in 2002. The recommendations were designed to support a student from infancy to career and to provide for lifelong learning for all Californians. Its ambitious scope, combined with General Fund shortfalls, made it hard for the plan to gain political traction.

**2010: Appreciating Our Past: Ensuring Our Future.** Against the backdrop of the worst economic downturn since the Great Depression, the Legislature began another review of the Master Plan. Its initial report highlighted the lack of clear goals for California’s educational system and the need for an overarching framework of public policy goals based on outcomes. Budgetary pressures halted the progress on the Master Plan review, and the work never resumed.
and responsibility for setting education policy to the Governor. Under the plan, the Superintendent of Public Instruction would be responsible for oversight, holding the Department of Education, Legislature and Governor accountable for education outcomes. Then-state Senator Jack O’Connell, a member of the committee as well as a candidate for Superintendent, objected to the proposed redefining of the constitutional office and withdrew his support for the plan. After his election to the statewide office, he actively campaigned against the plan.

If the governance changes represented a substantial hurdle, so did the costs of the proposed new programs, especially as the Legislature considered a $21 billion budget gap. Though parts of the proposal moved forward legislatively, the overall plan ground to a halt.

Mr. Douglass said the Legislative efforts shared a common thread in failing to include representatives from the higher education institutions who have deep familiarity with the issues involved, as well as access to data on enrollment and finances and the expertise to analyze it. The different segments have vastly different funding streams and their actions and responsibilities are bound by different legal and constitutional statuses. UC has an unusual constitutional authority that in practice means that, aside from budget, it exists largely beyond legislative directives or lay commission efforts, Mr. Douglass said. And while state General Fund allocations are very important to supporting undergraduate education at UC, the state’s General Fund contribution represents just over 11 percent of the UC’s overall budget.

Bringing the segments into the discussion necessarily invites competition and dissention among them, but without them, the process and the product is an external exercise and not likely to get buy-in from institutions that have their own political influence. One reason the original Master Plan worked is that its drafters were under intense pressure to get something done. The Legislature was being barraged to approve campuses that would exacerbate competition for resources; absent a plan – agreed upon by all segments – the Legislature would shape the future. Governor Edmund G. “Pat” Brown pressured the drafters to come to an agreement, though he did not try to influence the content, Mr. Douglass said.

The institutions were at the table, and their cooperation could be more accurately categorized as trying to manage their inherent competition. The resulting document did not reinvent higher education in California, Mr. Douglass said, nor did it increase access. It reined in costs by putting more of the burden of lower division courses on the community colleges. And much of what was in the plan failed to become law.
Mr. Douglass recommends calling on the individual segments to create the process for developing the new Master Plan.

Nancy Shulock, who studies higher education and opportunities for reform at CSU Sacramento’s Institute for Higher Education Leadership and Policy, in a 2004 paper assessing the durability of the 1960 Master Plan, hypothesized that the plan’s success in defining the different roles of the segments shaped subsequent discussions about reforms around the individual institutions, at the expense of a statewide assessment. “While other states more readily take a statewide look, we compartmentalize our analyses because we have compartmentalized our institutions.” As a result, “When we do raise cross-cutting issues, we have no policy handle for dealing with them because institution-specific approaches trump statewide coordination every time.”

The discussion needs to shift to “meeting the educational benefits of Californians,” Ms. Shulock wrote nearly a decade ago. Though that discussion has yet to start in earnest, the data collected as a result of the Governor’s new state budget initiatives will provide a clear picture of where the starting point is.

**New Conditions, New Economy, New Opportunities**

Given previous unsuccessful attempts to remake the Master Plan, a legitimate question is what would make a new effort any different or more urgent than earlier efforts. The Commission’s response is that current conditions are fundamentally different and the need more urgent.

Though previous recessions eroded the Master Plan’s promise of access by reducing enrollments, the Great Recession marked the deepest and longest downturn in generations. The downturn and the slow but steady recovery are remaking California’s economy with fewer medium-skilled jobs and greater demand for skilled and educated workers while the rate of technological change is increasing. The need to develop new goals and a new plan to ensure Californians are part of this new economy requires a concerted and coordinated effort to maximize the role of the state’s public higher education institutions in this effort. Unless there is a significant change in the structure, funding will be a perennial problem. In addition to new goals and a new vision, the state needs to commit to fund those goals and vision.

The technology revolution that is changing the economy, and the individual’s role in it, has yet to materially change California public
higher education. The rise of the Massive Open Online Courses (MOOCs) brings with it the promise of increased access and potentially lower cost. MOOCs also hold the potential to unbundle previously packaged courses of study, much as cell phones and voice-over-Internet protocol unbundled telephone service, and Craigslist and online news aggregators dismantled the newspaper industry, and online file sharing undermined the recording industry and music retailing. Though previous rationales for reconstructing the Master Plan remain as urgent as ever, the disruptive potential of MOOCs, if not addressed constructively through a coordinated and efficient strategy, suggests that delaying an overhaul of the Master Plan creates an immense risk not only to California's public higher education institutions, but to the state's long-term economic and civic vitality.

The debate over online education very much reflects the questions of what defines a quality higher education and who gets to decide. It touches very close to the question of who owns public higher education. In the current model, the faculty holds a powerful hand, as departments make the call on whether a new course is added or whether course credit can be awarded for a class taken elsewhere. These individual decisions aggregate to a given level of quality, and they tend to favor actions that confer status on the faculty and school. At some elite schools, market forces validate these choices when top legal firms and businesses seek out their graduates and reward them handsomely. In general, however, faculty and administrators are slow to seek or implement the views of outsiders, such as businesses, as to what constitutes a quality higher education.

Changes that transformed higher education rarely come from within the university, whether it is new technology like the Gutenberg press, or the G.I. Bill that transformed public higher education in the United States. The advent of the MOOC may well represent such a change, but the arbiters of MOOC's success might not be public higher education institutions, but rather the consumers of higher education – the students and the people who hire them. To the extent that market forces can independently validate the quality of a certificate or degree offered through an independent online class, or set of courses, Massive Open Online Courses represent an existential threat to the status quo.

MOOCs are the latest manifestation of the Information Revolution that is decades old. The broad public discussion about what constitutes a quality mass public higher education for the Information Age likewise is decades overdue. This question must be addressed in the drafting of a new Master Plan.
The increase in revenues generated by the state’s recovery and in particular, temporary tax increases resulting from Proposition 30, naturally generates optimism and, after five years of budget cutting, a sense of relief. The push to increase efficiencies, however, must not stop, and must go beyond simply cost-cutting and consolidation to a wholesale reexamination of how institutions use the limited money they have. Just as campuses have relied on lecturers and larger class sizes to reduce educational costs, they have to implement strategies that will contain administrative costs in the face of rising health and pension costs.

In recognition of the need to find other sources of revenue, California’s public higher education systems should look to what they can do to generate revenue from their own operations. If technology has been a driver of change, California’s universities have been drivers of new technologies. In particular, the campuses of the University of California have led innovation in computer and electrical engineering, medicine, biomedical engineering and nanotechnology, to name a few. As the state debates the best way to use tax revenues to fund higher education, California’s higher education institutions, particularly the UC, need to be more ambitious in turning innovation developed with university research resources into revenue that can be directed toward the university’s broader education mission. The University Office of the President has encouraged the UC Regents to devote more money to seed funds to grow promising university-created technologies and the UC’s Los Angeles campus is starting a nonprofit corporation to manage its intellectual capital and industry-sponsored research. The mission of the nonprofit and its board is to improve the number of inventions that UCLA reports, increase the number of UCLA’s patent applications and increase the overall flow of licensing royalties back to UCLA.41

Unlike the initial Master Plan, which emphasized structural separation of the different segments, the new Master Plan must bridge the segments and emphasize coordination and cooperation. The plan should be developed first from the perspective of what serves the needs of students and the state as a whole, while ensuring that the state builds its higher education capacity, if in a new form. Part of the New Master Plan effort should include an examination of whether the current array of colleges among the three segments can be improved. Greater regional coordination among public higher education segments is a start. It clearly can increase opportunities for students and improve outcomes, whether in Long Beach or Cañada College’s four-year degree option in cooperation with San Francisco State University and private institutions.

The Master Plan was very much a product of its time, and its engineers reflected the perspective of the higher education institutions from which they came. In delineating roles and boundaries, the Master Plan drafters
knew that if their negotiations failed, the Legislature would craft its own solution, one that might not have served the institutions’ interests as well.

The approach used was appropriate for the challenges the state, and the institutions, then faced, and California enjoyed decades of economic and educational dividends as a result.

The state faces different challenges now, and though California’s higher education institutions are central to the solution, the state needs to employ a broader perspective in developing a New Master Plan so that it reflects not only the needs of the institutions, but more important, the needs of students and the state as a whole.

To assure a broad perspective of views, the drafters should represent not only institutions – the suppliers of public higher education – but consumers of higher education, including student advocates, civil rights organizations, civil society advocates, and representatives from business groups and local government. In hearing from such groups during its study, the Commission found their perspectives valuable, informed and compelling.

Recommendation 1: The Governor and the Legislature should direct the development of a New Master Plan for California Higher Education. The New Master Plan should lay out goals and a public agenda for higher education aimed at the needs of students and the needs of the state as a whole to increase the number of Californians with higher education.

These goals should include:

- Substantially increasing the number of students who complete higher education courses with degrees, certificates or diplomas who can meet the state’s future workforce needs.
- Reducing the average time to degree for full time students, particularly at community colleges and state universities.
- Increasing the participation and completion rates of students from disadvantaged backgrounds.
- Guaranteeing that college is affordable for all qualified California students.
- Ensuring that the degrees offered by public education institutions align with the state’s economic and civic needs.
Integrating online learning into degree programs to reduce bottlenecks, increase access to high-demand courses that fill up quickly and, where possible, lower costs.

- Developing online classes that can be awarded unit and content credit in all institutions in all segments.
- Working with existing institutions to develop four-year online degrees.

Improving efficiency to make greatest use of limited resources to produce high quality education and to maintain affordability across segments.

Recommendation 2: The Governor and the Legislature, in drafting the New Master Plan, should draw from students, alumni, civic organizations, local governments and business and economic development groups, as well as from the higher education institutions themselves.
New Master Plan Should Explore Coordination, Structure

In the years since the first Master Plan was developed, individual campuses within each segment have grown and developed expertise at different rates. At the same time, campuses that once served distinct communities now are part of larger, interconnected metropolises. In its previous report on community colleges, the Commission urged the state to remove barriers to greater regional cooperation between colleges situated near each other, and, where it made sense, to make it easier for colleges and college districts to consolidate.

While recognizing the political hurdles involved and the relative costs of various programs, greater cooperation and coordination between and among community college districts and state colleges could allow for better planning and more efficient use of resources. It also could allow campuses to specialize in a certain subject area, such as health care or business, allowing another to focus on another study area to reduce unnecessary duplication and increase the level of offerings at any single campus. The Commission acknowledges that campuses, particularly in the CSU and UC system, consider it part of their mission to offer a broad array of disciplines at each of its campuses. The obvious place to start would be at the community college level, where students increasingly take courses at more than one campus, and where adjoining districts increase the number of campuses accessible to a large catchment area of students.

The lines between campuses will only become less distinct as students integrate online courses from more than one campus, and ideally, more than one segment, into their schedules. Community colleges already are experimenting with locating branch campuses within universities, as Sacramento City College does at the University of California, Davis campus. Cañada College, part of the San Mateo Community College District, has for more than a decade offered its students the chance to earn a bachelor’s degree without leaving the campus through agreements with San Francisco State University and others, which now include National University, Notre Dame de Namur University and the National Hispanic University.
These experiences bolster the case for organizing higher education efforts regionally, rather than by segment. The Long Beach College Promise, discussed in the next section, demonstrates that regional approaches can be employed even with the existing segmented structure.

Experts who testified before the Commission encouraged the state to think more ambitiously about redefining the segments, and what institutions within each segment could do.

John Aubrey Douglass, a Senior Research Fellow at the University of California, Berkeley’s Center for Studies in Higher Education, told the Commission that California must reimagine higher education on a far greater scale or it won’t successfully reinvigorate its economy or remain at the vanguard of innovation and research.

Mr. Douglass recommends that California allow at least 10 community colleges to grant four-year degrees, something Florida and a number of other states already do. Their focus could be on establishing programs in fields that are generating jobs, such as nursing or education, and offer students a lower overall cost compared to CSU or UC campuses. In Florida, for example, where 23 of the state’s 28 community colleges offer at least one four-year degree, programs range from bachelor of applied science in organizational management to banking, business administration, technology management and health services administration. To increase the number of Californians with four-year degrees, some community colleges could focus exclusively on preparing students for transfer, or provide students in need of remedial help with “gap year” programs so that they could be more successful at four-year institutions.

The state also could consider establishing a new polytechnic sector within the CSU system, building on the success of the segment’s Pomona and San Luis Obispo polytechnic campuses, Mr. Douglass said. The segment could explore creating three-year bachelor of science degrees to reduce cost and increase the number of students the segment could serve. The segment would focus on supporting science, technology and engineering-related businesses in the state.
A number of witnesses suggested that the state create a stand-alone California Open University, managed separately from CSU or UC, which would focus on online education. Florida recently approved a plan to allow the University of Florida to offer online degrees and the State University of New York is offering a four-year online degree. In both cases, the state systems are trying to consolidate online activities in one place to avoid duplication and to make it easier to expand offerings.

Alternatively, the California Open University could adopt some of the components of the United Kingdom’s successful Open University, which for more than 40 years has offered distance learning, primarily to adult students, through a combination of textbooks, video, Internet and in-person interaction. California’s approach to online education, discussed separately, is decentralized. Online courses from one campus or segment are not automatically accepted for credit at other campuses in the same segment, though AB 386 (Levine), enacted in 2013, requires CSU campuses to award credit for online courses offered by other CSU campuses by the beginning of the 2015-16 school year.

Recommendation 3: The Governor and Legislature should encourage the drafters to think responsibly about how higher education is structured, and through the New Master Plan process, re-examine the rationale for how the three-tier system is currently organized and to explore greater campus-level specialization in all segments.
Building Better Links: The Long Beach Experience

The Commission explored the question of how to better link higher education to secondary education to increase awareness, student preparation and greater access. In its study of community college governance, the Commission was troubled by the high proportion of students who were unprepared for college-level work. While some students required only brush up courses in some subjects and could engage in college-level courses in others, many more students arrived years behind. In this study, the Commission learned that a shrinking portion of high school graduates was applying to California public higher education institutions, some for fear they could not get in, or for fear that higher tuition and fees would make college unaffordable, despite CSU’s and UC’s efforts to boost student aid. The Commission also learned of outreach programs that introduced middle school students and high school students to the idea of planning for college, and financial aid outreach that explained to teachers and students and their families about the many options still available even in an era of strained resources.

In its 2012 study on community colleges, the Commission saw examples of how regional cooperation and coordination across community college districts could increase efficiencies for campuses and districts as well as expand opportunities for students. In addition to formal consortiums organized around economic regions, a number of colleges also were engaged in voluntary regional partnerships, mostly formed with a focus on improving student participation and completion rates. Among them were the Central Valley Higher Education Consortium and the San Diego and Imperial Counties Community College Association. In this study, the Commission looked at an example of vertical cooperation among educators at the high school, community college and state university in the city of Long Beach.

Regional partnerships such as the Long Beach College Promise not only get high school students to think of themselves as college-bound, but to prepare themselves so they are in a better position to succeed once they are there. Michele Siqueiros, executive director for the Campaign for College Opportunity and a member of the California Student Aid Commission, said such efforts can and should start even earlier, with outreach to students and parents at the middle school level.
The Long Beach College Promise

The Long Beach College Promise program launched in 2008, though its roots stretch back nearly 20 years – if not several decades. Faced with a quickly eroding local economy as defense spending shrank, Long Beach community leaders, at the urging of the city’s mayor, formed the Long Beach Economic Partnership in 1992. The group’s subsequent report, “A Call to Action,” focused principally on improving business, but it underlined the importance of education as “a prerequisite to economic growth,” and called on the Long Beach Unified School District, Long Beach City College and California State University, Long Beach, to work together for the good of the community. The three institutions formed the Long Beach Education Partnership in 1994.45

The partnership’s initial work focused on improving communication between K-12 and higher education, and on other projects such as developing district standards for teaching history. Later renamed the Seamless Education Partnership, the group shifted its attention to better preparing high school students for college and aligning curriculum and standards across the institutions. In March 2008, the leaders of Long Beach Unified, Long Beach City College and CSU Long Beach – Superintendent Christopher J. Steinhauser and Presidents Eloy Ortiz Oakley and F. King Alexander – announced the creation of the Long Beach College Promise.46

Creating a Pathway to Higher Education

At its core, the College Promise essentially guarantees students from the Long Beach Unified School District the opportunity to pursue a college education. But the program’s public face – early outreach to grade-school students, daylong trips to college campuses, partnerships with the business community, principal-for-the-day activities – is just the start. The three institutions actively partner in efforts to reshape English and math readiness for Long Beach Unified’s 84,816 students; provide professional development for district teachers; and improve the teacher preparation program at CSU Long Beach’s College of Education.47 “We have so much going on in terms of collaboration and working on programs together, that even I’m not always aware of all that we’re up to,” said Eloy Ortiz Oakley, president of Long Beach City College.48 A Long Beach Unified document outlining the relationship shows the three partners working together on more than 20 initiatives.49

The College Promise public outreach efforts begin with Long Beach Unified’s elementary school students. Every year, all of the district’s fourth-graders take a field trip to Long Beach City College, where they meet with students, teachers and administrators, including the president. They tour CSU Long Beach in the fifth grade. “We try to
make them feel that they’re comfortable on our campus,” said F. King Alexander, the university’s former president. “We want them to go back thinking, ‘I’d like to do that.’”

In middle school, students sign a pledge to seek a college education.

Those involved with College Promise make clear that pledging to attend college does not necessarily mean that every student will head down a four- or five-year path to a bachelor’s degree. They say that nearly all students will need some type of postsecondary education, and degree attainment refers to certificates and associate of arts degrees as well. “Everyone needs to be able to function at a high level. Welders, mechanics and other workers – they have to read very detailed manuals; they need a high level of math and reading skills,” said Christopher J. Steinhauser, Long Beach Unified superintendent. “We prepare you for the world of college and career.”

The promise part of the program is this:

- All Long Beach Unified high school students who successfully complete California State University’s required college preparatory classes – so-called “A through G” courses in history, English, math and science, among others – or meet the minimum CSU-City College transfer requirements will be guaranteed admission to CSU Long Beach. “We will hold a spot for them no matter how many applications we get,” then-President Alexander told the Commission. The university received 78,000 applications for admission in 2012. Of the 4,282 freshmen enrolled for fall 2012, 743 (17.4 percent) were from Long Beach Unified.

- Beginning in 2011, the Long Beach City College Foundation began paying the first semester fees for all Long Beach Unified

### Long Beach Promise Outcomes

- 200 percent increase in Long Beach Unified School District graduates completing college-level math at Long Beach City College.
- 500 percent increase in Long Beach Unified School District graduates completing college-level English at Long Beach City College.
- 4,000 free semesters of college at Long Beach City Unified.
- 29.3 percent increase in Long Beach Unified School District applications to CSU Long Beach between 2008 and 2012.
- 34.2 percent increase in Long Beach Unified School District admissions at CSU Long Beach between 2008 and 2012.
- 43.2 percent increase in Long Beach Unified School District enrollments at CSU Long Beach between 2008 and 2012.
- $6.5 million raised by Long Beach City College Foundation to cover first semester enrollment fees for local high school graduates.


high school graduates who enroll at Long Beach City College in the fall immediately following their graduation. Enrollment fees are $46 a unit. The foundation raised $6.5 million and established an endowment to cover the costs. 54 1,540 new Long Beach Unified graduates attended Long Beach City College in fall 2012. 55

The well-planned marketing effort, which includes a website (longbeachcollegepromise.org) and a “How to Get to College” guide printed in six languages, is a central piece of the College Promise initiative. But the real foundation of the program is the active – and in some ways unique – professional collaboration among the three education institutions. A “Seamless Education” leadership council of 25 executive staff, faculty and administrators from each institution meets monthly, sometimes weekly, to set priorities and review initiatives, and faculty from the math and education departments regularly analyze and exchange data on Long Beach Unified graduates. Among important areas the three have worked closely on:

- **Teacher preparation and training:** Long Beach Unified hires about 75 percent of its teachers from CSU Long Beach, but Superintendent Steinhauser says district officials weren’t always satisfied that College of Education graduates were meeting their needs. 56 Under the Seamless Education Partnership, the two institutions launched an effort to reform teacher training, with K-12 teachers meeting with CSU Long Beach faculty and students to explain “what it is really like in the classroom.” 57 The discussions led to the College of Education using experienced K-12 administrators and teachers to lead a number of its teacher-training classes, as well as advise on the curriculum. 58

- **Teacher retraining:** Funding cuts forced Long Beach Unified to lay off elementary school teachers. At the same time, the school district still lacked enough skilled teachers in math, science and special education. Working together, Long Beach Unified and CSU Long Beach obtained $2 million in grants from three foundations to retrain many of the out-of-work teachers in science, math and special education. The money enabled experienced teachers, already credentialed in multiple subjects, to obtain single-subject credentials at no cost. 59 The two institutions now are working on an “intensive training” program to enhance math and science knowledge among elementary school teachers. 60

- **Sharing data:** The institutions are heavy users of student data, including test scores and class grades, and exchange it monthly
throughout the year. Essentially, the data is used to show how Long Beach Unified students are performing once they start attending classes at Long Beach City College and CSU Long Beach. The information, which can track students to the high school they attended, the specific classes they were in and the teachers who taught them, enables the school district to, in Superintendent Steinhauser's words, “redeploy resources to fix the problem.” The sharing of data, for example, has led to changes in some Long Beach Unified English and math courses, and has helped significantly reduce the number of students needing English and math remediation in college.61 Tracking student outcomes is the driving force behind much of the work the institutions do to improve college readiness and create smoother pathways from high school to higher education. California needs to do this on a state-wide basis, underscoring the need for a central organization that can collect and analyze data from all of the state's public higher education institutions.

- **Early Assessment Program:** In conjunction with the state Board of Education and the Department of Education, the California State University system created the Early Assessment Program – EAP – in 2006 to measure whether potential students were prepared for college. The program gives high school juniors the option of taking tests to determine their readiness for college-level English and math, and then gives them a chance to improve their skills in their senior year. With more than 60 percent of the roughly 40,000 freshmen admitted to CSU each year required to take at least one remedial course, the aim is to save money and time by identifying those who need help before they set foot on campus. In 2010, about 84 percent of eligible juniors around the state opted to take the EAP English test, with about 77 percent taking the math portion.62 In Long Beach, the test is mandatory, not optional. In 2009, 91 percent of Long Beach Unified high school juniors took the math test while 96 percent took the English test.63

The early results have been impressive. Long Beach Unified School District freshman admissions to CSU Long Beach increased by 43 percent between 2008 and 2012, despite the university having to decrease overall admissions by 2,000 students in the 2009-10 and 2010-11 school years due to budget cuts.64 The results of the Promise Pathways initiative, in which participating students are placed into English and math courses based on their high school grades rather than standardized assessment courses, show a 500 percent increase in completion of college-level English and a 200 percent increase in completion of college-level math. Some of the largest relative gains were
made by Latino and African American students. More than 4,000 Long Beach Unified students have received free semesters at Long Beach City College, and freshmen from Long Beach Unified and transfers from Long Beach City College have higher persistence rates at CSU Long Beach than non-Promise students.

**Can Long Beach Serve as a Model for California?**

The Long Beach College Promise program has flourished without any direct help from the state. The program gets no specific state funding, and the sole staffer devoted to its general operation – the executive director, who also serves as the head of the Long Beach Education Foundation – is funded in part from the $20,000 each institution contributes from its operating budget. The Seamless Education Partnership over the years has established important financial ties with a number of national, state and local businesses and nonprofit organizations, including the Education Trust, Business Higher Education Forum, Verizon Foundation, Boeing Foundation, James Irvine Foundation and the Business/Education Roundtable.

Long Beach leaders strongly believe the program can ably succeed beyond their city’s borders. They are quick to cite the dozens of fact-finding pilgrimages that others have made to their offices – from other California school districts, other states and countries as far away as Israel – as proof that many other education and civic leaders believe it too. The plan has been presented to President Obama’s White House Domestic Policy Council.

Their first point is that Long Beach isn’t much different or any more homogeneous than any other place, in California or around the country. They acknowledge the natural link created by having all three education segments geographically close to each other, but say the same can be said of any number of regions up and down the state – Fresno, San Bernardino and Sacramento, for example. And Long Beach Unified has just as diverse a student body as anywhere else, with 70 percent of its students – more than 59,000 – on free or reduced price meal programs. With nearly 85,000 students, Long Beach Unified is the third largest school district in the state. “We actually have more students in the district than Austin (Texas), Cincinnati and Detroit,” then-Long Beach State President Alexander said. “I remind people we’re bigger than Boston. They can’t out-problem us.”

Their second point is that state policymakers can trigger the spread of programs like the Long Beach College Promise by setting goals and holding educators accountable. In 2011, Governor Brown signed into
law SB 650 (Lowenthal) permitting the Long Beach Community College District to give College Promise students priority when enrolling and registering for classes. Besides providing institutions flexibility to work together, the law also required the partnership to evaluate whether the change has led to increases in, among other things, the number of students who earn a degree or certificate or who transfer to a four-year university. “That’s where the state should get involved,” Superintendent Steinhauser said. “The bill should be for everyone in California, not just Long Beach. What really has to happen is you need to hold people accountable. We need to hold K-12 accountable for how many kids are going to college ... and higher education accountable to how you’re working with K-12.”69 For his part, President Oakley called for a “clear commitment from the state of California expressing expectations.”70

Other CSU campuses, notably in San Francisco and San Diego, have formed cooperative ventures, though they don’t share the same intensive use of data collection or have a brand as strong as “College Promise.” But they could, and creating a set of standard components for similar regional cooperative agreements in exchange for the right to use the brand might be one approach.

**Recommendation 4:** To encourage enrollment in higher education, improve higher education completion and reduce costs of remedial courses, the Legislature should provide incentives for districts and colleges to collaborate and expand counseling and outreach to middle schools and high schools in areas that have both state college campuses and community college districts.
Link Some Funding to Goals

In its February 2012 report on California’s public community college system, the Commission recommended that at least part of the system’s budget be based on performance toward stated system-wide goals for the community college system. The Commission recommended setting a small part of the added revenues from fee increases into a discretionary fund for performance and innovation under the control of the Office of the California Community Colleges Chancellor. The Commission encouraged the use of metrics appropriate to the community colleges, including the achievement of milestones that have been shown to improve student success and serve disadvantaged populations.

During the Governor’s spring 2013 budget negotiations, the administration initially proposed both performance targets and a budget formula that linked progress toward meeting the targets to funding for the California State University and the University of California. Funding would shrink if the institutions fell short of the target. A trailer bill passed with the budget, AB 94, contained separate sets of performance measures for the University of California and the California State University developed with the input of the systems and other stakeholders. While the new law requires annual reporting on the measures, it does not link progress as defined by the measures to higher education funding.

The Commission encourages the state to use performance funding for at least part of the state’s allocation to the California State University and the University of California as well as the community colleges, to focus attention on the state’s goals and to ensure accountability for progress toward these goals. The Commission also recognizes the long-term benefit of taking a sequenced and methodical approach. That opportunity now exists, allowing the state to test and refine performance measures and to think about the best way to integrate them into the state’s broader goals for higher education.

There is nothing new about performance-based funding. As many experts in higher education funding repeatedly point out, this is probably its third iteration. Tennessee, a national leader in developing sophisticated performance funding models, launched its effort in 1979, after a five-year pilot program. Others followed over the next two
decades, including Florida, Ohio, Pennsylvania, Indiana, Oklahoma, Kentucky, Missouri, South Carolina, South Dakota and the Washington State Board for Community and Technical Colleges, which coordinates locally governed colleges in the state.\textsuperscript{71}

After several years, though, many of the early adopters reverted to their previous funding mechanisms and drifted away. Several reasons have been cited: The formulas were too complex and the incentives too small; data were insufficient or unreliable; the plans took a one-size-fits-all approach to colleges and universities with decidedly different missions; the schemes were imposed without institution or faculty buy-in; they lowered academic standards and ran the risk of turning institutions into diploma mills concerned only about meeting their numbers and not about quality.

Still, the idea was alluring enough – rewarding institutions for access and success and holding them accountable for helping the state address clearly defined needs – that education policymakers continued to refine their models. As budgets tightened, then constricted over the past few years, interest in it once again has surged. Today, 12 states have it in place, and another 23 states are transitioning to it or have begun formal discussions about implementing it.\textsuperscript{72}

The newer funding models made design changes in several key areas, including:

| Previous Recommendation: Spending Priorities Should Be Aligned with Mission |
| Recommendation: Spending priorities for the community colleges must be aligned with the mission to help students succeed in achieving their academic goals. |
| • A portion of state funding for the California Community Colleges should be used to incentivize identified student outcomes. The formula should: |
|   ✔ Reward colleges that increase the number of students who pass certain milestones that have been shown to improve student success. |
|   ✔ Provide incentives for student attainment of certain goals, such as completion of basic skill sequences or earning a certificate, credential or degree. |
|   ✔ Include incentives to reward colleges for the number of certificates and degrees awarded in high-need industry and workforce areas, as identified by the Chancellor’s office. |
|   ✔ Be weighted to address equity issues and ensure the colleges continue to serve disadvantaged populations. |
|   ✔ Begin implementation of these concepts starting with willing community college districts to help the system identify and address unintended consequences. |

They promote and help sharpen differences in the missions of the various universities and colleges in a state. “All institutions have an opportunity (not a guarantee) to benefit by excelling at their different missions.”

They reward success in underprepared and disadvantaged populations, including low-income, minority, adult and academically at-risk.

They simplify the plan by limiting the number of outcomes to be rewarded.

The metrics are clear and difficult for the institutions to manipulate. For example, they focus on the number of graduates, rather than graduation rates.

Among other areas, they reward progress toward degrees based on credits obtained, on-time graduation rate success and success in awarding high-impact degrees in science, technology, engineering and math.

They reward such achievements as the number of vocational and associate degrees, transfer degrees and degrees awarded to Pell grant recipients.

Most important, perhaps, is that the newer models draw from funding pools that are large enough to make a difference. When the plans were first launched, states devoted only 2 or 3 percent of their higher education budget to incentivizing the institutions – “not enough to change anyone’s thoughts,” as one Indiana official charged with implementing his state’s well-regarded plan said. The models now typically start with at least 5 percent earmarked for incentives, and often include plans to gradually increase the amount.

Tennessee’s efforts, however, exceed all other states. A performance-based funding pioneer, the state in 2010 created a model that funds its higher education institutions based on progress and outcomes.

**Higher Ed Metrics: National Best Practices**

The National Governor’s Association Center for Best Practices collaborated with Complete College America to develop a set of measures that focus on progress and outcomes.

**Progress Metrics:**
- Enrollment and success in remedial programs
- Success in first-year English and mathematics courses
- Credit accumulation
- Retention rates
- Course completion

**Outcome Metrics:**
- Degrees awarded (annual)
- Graduation rates
- Transfer rates
- Time and credit toward degrees

education institutions entirely on outcomes – in other words, every
dollar that a Tennessee college or university receives from the state is
based solely on whether it meets the productivity targets that have been
set for it. While this novel financing formula, fully implemented in the
2011-12 fiscal year budget, has drawn widespread interest around the
country, no other state has yet attempted to establish anything close to a
100 percent performance-based financing model.

What About California?

The question, of course, is whether performance-based funding can take
hold and work in California. It’s one thing for Tennessee, using its
performance funding mechanisms, to dole out $767 million to
22 universities, community colleges and technology centers, with
220,000 students. (Its total higher education budget is $1.3 billion.) But California’s postsecondary system is on an altogether different scale.
In fiscal year 2013-14, the state will contribute $2.34 billion to CSU,
$2.88 billion to UC and $3.91 billion to the community colleges, or more
than $9 billion for 145 university and community college campuses, with
more than 3 million students.

Many education experts believe outcome-based funding can work in
California. Not because it creates more money for the systems – the
institutions can only receive what the Legislature allocates. Instead, they
argue performance funding gives the state purchase power over the billions it spends annually on the nation’s largest public university
system and gets “the attention of institutions” to change behavior and
focus on what’s good for the entire state instead of what’s good for just
the universities. Performance-based funding is about “thinking about
what you want from institutions,” said one leading researcher. “It’s not
a silver bullet. It’s one lever that states have over the thing they control
the most, which is appropriations,” said another.

In a sense, California, like many other states, already has a performance
funding system in place, but one driven by enrollment – it pays for input.
Under the Master Plan’s founding principle of broad access, the state
pays the community colleges, UC and CSU to stick students in its
classrooms. It doesn’t, however, pay for them to leave with certificates or
diplomas in hand. “Incentives change behavior,” said Kevin Corcoran,
program director with the Lumina Foundation, an Indianapolis-based
education nonprofit that has funded several studies of performance
funding. “We’re incentivizing the wrong thing now. It was great when
access was king."
Because the latest version of performance funding is relatively new, there is as yet no firm data on whether it can compel change and lead to more students obtaining certificates and degrees.82 “The quantitative evidence is still anecdotal,” Mr. Corcoran said, and more studies need to be done. Objections remain that universities will use the metrics to pressure faculty to award unwarranted grades to increase graduation numbers or that policymakers will impose the formulas without cooperation or buy-in from the institutions. While performance funding doesn’t solve education funding issues, Mr. Corcoran and others say “people intuitively like” it because it creates transparency and promises the kinds of efficiencies that have to date been missing from higher education funding. Performance funding, he said, can work to “end the entitlement mentality that exists among institutions about their funding.”83

**Recommendation 5: Link a portion of funding to progress in achieving targeted goals.**

The final 2013-14 General Fund budget did not link funding to outcomes or progress toward specific education goals, though it does outline plans to increase instructional funding by 5 percent a year for four years in exchange for an agreement to freeze tuition and fees. A budget trailer bill, AB 94, requires the CSU and UC to provide information on transfers, low income student participation, course credit accumulation and course completion rate, by March 2014.

The bill does not indicate that the data is to be used for performance funding. It should, however, inform discussions about what data is most important to collect, and how to ensure that the data are standard across segments. It also should inform the discussion about what the state’s goals should be, a conversation that should include a broad array of stakeholders, including constitutional officers that sit on the UC Board of Regents and the California State University Board of Trustees.

In budget negotiations, the administration had proposed linking increased funding to 10 percent increases in on-time graduation rates, number of transfer students, number of degrees completed and number of undergraduate degrees completed per 100-full-time equivalent students.84 The plan generated opposition from CSU and UC, which had not been consulted in the development of the goals, as well as from lawmakers who felt such goals should be set through the legislative process, not through the budget.85

AB 94’s outcome measures, developed with the input of UC and CSU, suggest that progress in these measures serves the state’s higher education goals, though the trailer bill is silent as to what those goals are.
A 2012 bill, SB 721 (Lowenthal), proposed setting goals that included improved student success, better alignment of degrees and credentials with workforce needs and increased institutional efficiency. SB 721 also called for creating a set of metrics through a working group convened by the Legislative Analyst’s Office, which had done extensive work on the importance of setting a public agenda for higher education and the need to update the Master Plan. Governor Brown vetoed the bill, indicating that he wanted the metrics to be developed through another process.86

A Senate bill, SB 195 (Liu), enacted in 2013, contains intent language indicating that the Legislature will base its policy and funding decisions on three sets of goals:

- Improved student access and success, including increased participation by low-income students; higher completion rates by all students, including higher rates of degrees, certificates and transfers.
- Better alignment of degrees and credentials with the state’s economic, workforce and civic needs.
- More effective and efficient use of resources to improve higher education outcomes as shown by maintaining affordability, reducing time-to-degree, controlling costs and maintaining low fees.

Previous legislation introduced in 2010, SB 1143 (Liu), proposed establishing performance funding for the community colleges based on course completion. Proponents included the Los Angeles Chamber of Commerce, Long Beach City College and the Campaign for College Opportunity. They contended that California’s community colleges paid little attention to student outcomes, and spent too much valuable time and energy on student recruitment and access. SB 1143 eventually passed, but without performance funding provisions. Instead, it called for the creation of a task force to examine student success – what became known as the Student Success Task Force.87

In testimony to the Commission, Dennis Jones, president of the National Center for Higher Education Management Systems and a former advisor to the U.S. Secretary of Education, said that California should set goals before it develops any kind of outcomes-based funding system.

“Without goals, there is no basis for accountability,” Mr. Jones said. “A fixation on how things are being done is no substitute for what is (or is not) being done.”88

Goals serve as a basis for establishing fiscal policy that aligns the other components, Mr. Jones said, including appropriations to institutions,
tuition and fees, financial aid and improvements to institutional productivity. Without them, there is no basis for a conversation with the public and the resulting conversation will be about what benefits the institutions and not what benefits the citizenry, Mr. Jones said.

Another expert, Brenda Bautsch, senior policy specialist for the National Conference of State Legislatures, told the Commission that California needs to develop a slate of goals that includes both progress measures, such as improvement toward a goal, in combination with outcome measures. Ms. Bautsch, who has been working with California legislators, told the Commission that the starting point has to be clear goals that are supported by a broad group of stakeholders.89

During the 2013-14 Legislative Session, several bills were introduced that would implement individual pieces of such a strategy, and in some instances overlap. This piecemeal approach illustrates the need for greater coordination and sequencing. AB 94, for example, lists outcome measures.

Legislation proposed by Speaker Pérez, AB 1348, a two-year bill, would create the California Higher Education Authority, a 13-member board that would present and monitor post-secondary education goals for the state. The board would report on the efficiency of the segments in serving the state’s needs, make recommendations for improvement and serve as a clearinghouse for information.

The swirl of legislation and administrative initiatives demonstrate that California’s leaders are engaged in the discussion about the future of public higher education in California. But a piecemeal approach, however well-intended, is likely to fall short of meeting the state’s long-term needs without a strategy that first sets goals, then develops performance measures to assess progress toward meeting those goals.
Oversight, Online Education and a Portal for Students

During the course of its study, the Commission experienced difficulty in obtaining data about the operations and performance of the different institutions, including teaching loads, sabbatical policies and other data involving instructional and administrative costs. In part, this is the result of the different campuses in each segment developing varying administrative policies and practices as well as the reality that the campuses within each segment act with a large degree of autonomy. In many respects, the segments act as federations rather than as systems; this is as true with California’s community colleges, a collection of 72 independent districts with independent locally-elected boards, as it is with the 10 campuses of the University of California and throughout the CSU system. The Master Plan envisioned a coordinating agency, which was later created by the Legislature and subsequently became the California Post-Secondary Education Commission. Initially the commission collected valuable outcome data on students as well as projected higher education needs statewide. As part of its statutory role, it reviewed proposals for new academic programs and facilities, though the commission’s views were often ignored in practice and it too often had difficulty obtaining objective data, particularly from UC.

As part of a general government streamlining, Governor Brown eliminated the funding for the commission in 2011 after concluding that the commission was “ineffective.” Governor Brown urged California’s higher education segments, and stakeholders, to find new approaches to improve coordination and develop higher education policy.

In the two years since, no new approach has emerged. While such a body may not suit the goals of the individual segments, such a body would appear essential to the task of ensuring that the state’s public higher education institutions serve the interests of the students and the state as a whole. Absent the prospect of greater and more intrusive involvement and oversight by the Legislature, it is hard to imagine how the three segments would agree to coordinate their activities and develop joint strategies without such a body. The lengthy process in securing transfer and articulation agreements among segments suggests that such collaboration is not culturally instinctual.
Recommendation 6: The Governor and the Legislature should create an oversight body with the authority, or give the Department of Finance the authority, to obtain financial, workload and outcomes data from all institutions of California public higher education and require coordination among segments on data collection and transfer policies.

Recommendation 7: To improve transparency and public understanding of how its resources are used, the University of California should standardize its budgeting systems across campuses as well as standardize its measures for faculty workload and educational outcomes and post this data in a form that can be assessed and analyzed by the public.

**Online Education**

The Commission heard a great deal about the promise and reach of online education, both through existing courses offered at community colleges, California State University campuses and the University of California’s extension programs. It also heard firsthand from the developers of Massive Open Online Courses, or MOOCs, about the potential for outside course developers to create world-spanning classrooms that offer high level instruction at low cost and instances in which California public institutions, such as San José State University, have launched joint efforts with for-profit firms, such as Udacity. The University of California, Berkeley, has signed on with a consortium, edX, led by Harvard and MIT, to develop non-credit MOOCs, while UC Irvine and UC San Francisco are working with Coursera to offer MOOCs. Separately, as a system, the UC is looking at how to offer more online courses for credit to its own students.

The MOOC phenomenon is in its early stages, with lots of market online entrants boasting various levels of capacity and sophistication. To some, online education shares similarities with the earlier “distance learning” trend, which proved very well-suited to some subjects and students (the military found it hugely valuable and it has been put to good use at the Western Governors University, of which California is a supporter), though it fell short of delivering a new platform for mass higher education in the U.S. In the United Kingdom, however, distance education is a key component of the Open University, which has been successful in increasing access at a reasonable cost.

Online education is a term that covers many different models, some of which, like MOOCS, have very little or no in-person interaction, and rely on computer-graded exams and chat rooms that may or may not have an instructor or aid for discussion sections. Other models, such as “flipped”, or “blended” online models, use a combination of online lectures and online supplemental materials together with classroom work and discussion sections, essays and written examinations. MOOCs
might be inexpensive; flipped and hybrid models (already in use) are less so. There has been considerable debate about which subjects are best suited to different models and the degree to which models with little human interaction can ensure that struggling students are successful. Where MOOCs have shown success in teaching math and science, results are less clear for courses involving language and critical thinking.

All segments of California’s higher education system use web-enhanced, hybrid and online courses, and are in the nascent stages of using technology to provide comprehensive online options to their students. And each is exploring the frontier between Web-enhanced education and MOOCs. The California Community Colleges offers the California Virtual Campus, through which students can find online classes for each community college. Students are directed to a different website to apply, however, and from that website are sent to a school’s individual website for the actual application and instructions. Students must then apply individually to each school at which they wish to take classes, although some districts do have common applications for all the schools in the district. Not all online classes offered by community colleges qualify for course or unit credit at other community colleges, a problem common in all segments. Operated through a Chancellor’s Office grant to Butte-Glenn Community College District, the project potentially could be scaled up. The current General Fund budget allocates $16.9 million of the system’s Proposition 98 funding to increase the number of courses available to enrolled students through technology.

The University of California offered 2,500 online courses in the 2011-12 school year, though fewer than 120 of those were standard credit-earning undergraduate classes, the rest being graduate or extension classes. Three UC campuses, at Berkeley, Los Angeles and Irvine, offer online master’s degree programs for certain subjects. The procedures for enrolling in online classes hosted by campuses other than a student’s home campus have been cumbersome in the past, and UC has pledged to create a system through which students can easily cross-enroll in any online class in the segment by fall 2013. UC has established UC Online, which offers a smattering of high caliber undergraduate courses for UC students, and at self-supporting costs, non-UC students. These courses are transferable to any UC campus. UC Online’s original business plan called for funding the program through revenue generated from non-UC students, however with costs for non-UC students running between $1,400 and $2,400 per class, the university has had difficulty in attracting non-UC participants.

The University of California has agreed to use $10 million of its added General Fund budget allocation to expand online education with a focus
on high-demand for-credit undergraduate courses, consistent with Governor Brown’s push to integrate more online education aimed at high-demand gateway courses. Importantly, the UC’s approach has the support of the system’s faculty, which has been involved in shaping the Innovative Learning Technology Initiative, aimed at developing several dozen online classes by the end of the 2013-14 academic year.

The California State University currently provides the most innovative online undergraduate programming of the three segments. It offers a Reconnect degree that allows CSU students to finish a degree after previously quitting their studies. It also offers to undergraduates two online degrees, in business administration and applied studies, for students who have completed their general education requirements elsewhere. For transfer students, CSU Humboldt offers online “golden four” classes, necessary to establish eligibility for transfer to CSU. The university recently released 36 online classes in which students from any CSU campus can enroll for fall 2013.

There is discussion about the possibility of online courses being used to reduce the strain on “bottleneck” courses, which are required classes for which demand exceeds supply. While online classes may be a viable option for bottlenecks stemming from geographical availability, other causes for bottlenecks include lack of student readiness and students repeating courses.

The California State University has agreed to use $10 million of new General Fund money to address bottleneck issues by using online courses, as well as course re-engineering to integrate web-enabled study tools. Connected to this effort, CSU Chancellor Timothy White is set to commit another $7.2 million to student success initiatives related to student completion.

AB 386 (Levine), enacted in 2013, will allow CSU students to more easily figure out what classes are offered throughout the system, enroll in online courses at other CSU campuses where space allows and be able to get course and unit credit.

While it is too early to make any prediction of which approach will be successful, how it will succeed and exactly how or for whom success will be defined, given the talent and resources several such efforts have attracted, and the intensity with which they are developing their platforms, it is clear that such efforts will change the dynamics of traditional higher education.

The Commission notes the potential for reaching students embodied by online education and that some of the excitement surrounding online education is genuine and warranted. Some of the excitement is fueled by
hyperbole, as is some of the negative reaction from academia. There is no question, however, that a new generation of tech-savvy students has new expectations for how higher education should be delivered.

The negative reaction, particularly from higher education institutions and faculty, has been instructive. It underscores the Commission’s concerns about the shortcomings of California’s current segmented structure for higher education, and the need for greater coordination and cooperation among institutions within and between segments. In this, rigidity is weakness, and will only amplify the negative aspects of the dynamic that online education will bring. Institutions that embrace the new technology and find ways to integrate it into their educational mission will thrive and attract desirable California students, even if those institutions are not in California.

The Commission also has concerns from the student perspective, especially those without access to high-speed broadband or to computers, many of whom are the students that California needs to become invested in higher education and whom California needs to turn into graduates. Despite undeniable progress, a digital divide still exists. The Commission also recognizes the challenge stated by the Chief Executive Officer of Udacity, a leader in the emerging MOOC arena. In testimony to the Commission, Udacity CEO Sebastian Thrun, a former Stanford professor and Google executive, said that more than 90 percent of the people who start a MOOC course fail to complete it.

It is imperative that California higher education institutions develop an online strategy that recognizes that online education can benefit students and institutions, but only if designed with those goals at the outset. Faculty members are appropriately concerned about content. They should be less concerned about designing the delivery platform, an area in which developers outside of academe hold an advantage.

Such a strategy should address problems that are preventing student progression and completion, such as overcrowding or lack of course selection, as well as difficulty in transferring course and unit credits to other institutions. Such a strategy should not understate the value of the on-campus experience in terms of educational development, expanding personal horizons and socialization opportunities.

The Commission sees great potential in developing, as a starting point, greater online education offerings for introductory courses, high-demand lower division courses, especially those that are key prerequisites, and, appropriately designed, for remedial courses. These courses may not be MOOCs, and they may require the use of teaching assistants, and in the case of remedial courses, tutors. These may diminish hoped-for cost
savings, though if the courses speed completion, they will help reduce the state’s cost per degree. The Commission sees value in encouraging online education models that can engage students and move them forward by incorporating in-person discussion, tutoring and counseling, along the lines of the “high tech, high touch” model. It also sees great value in ensuring that such courses be developed in such a way that they can be accepted for unit and course credit at all levels – all campuses in each community college district, all California State University campuses and all University of California campuses.

A troubling hurdle to such an effort is the fact that each course has to be approved separately by the department faculty at each campus in each segment to ensure quality and consistency with the rest of the department’s curricula. This policy, while understandable, causes substantial delay and, if continued, will ensure that California will become a follower rather than a leader in development of online higher education.

Recommendation 8: The Legislature should provide incentives for developing high-demand introductory courses and bottleneck courses, such as prerequisite courses, that can be transferred for both content and unit credit to all campuses at all three segments of California’s public higher education system.

Recommendation 9: The Legislature should provide incentives for developing online courses for high-demand introductory courses, bottleneck prerequisite courses and remedial courses that demonstrate effective learning. To qualify, the course must be able to be awarded course and unit credit, at a minimum, at all California community colleges, or all California state universities, or all campuses of the University of California. Better yet would be courses that would be awarded credit at any campuses of all three segments. Courses could be designed by private or nonprofit entities according to college and university criteria.

A Higher Education Portal

An increasing number of students, and their parents, have become accustomed to near daily visits to Web portals. Such portals compile information from different sources, even different institutions, whether plane tickets, mortgage loans, investments, shoes, books or music. More students attend more than one California public community college or university as they pursue a degree or diploma, and over longer periods of time. This makes it more important to keep track of units and ensure that course and unit credit are properly transferred and recorded across systems. It is not always a straightforward exercise, as students and campuses lose track of records, and some campuses approve transfer of
unit credit, but not course credit. It also is important for students to know – in advance – whether a course they plan to take, in person or online, at one community college, CSU campus or UC campus will be accepted at other schools they plan to attend, and in the departments that offer the major they want to pursue.

Students, and their parents or caretakers, would benefit from a student-centric state public higher education Web portal that could consolidate all records into a single master transcript, or eTranscript, as some CSU campuses have discussed. Such a portal should have individual password-protected student accounts, which would consolidate a student’s transcripts from California public higher education institutions, as well as any advanced placement courses and credits they may have from high school, or online course that has been approved for credit. In setting up the account, the student should be able to authorize institutions to share their portion of the student’s record with the portal, with appropriate privacy safeguards. The student could then authorize sharing part or all of the information with other higher education institutions.

The portal should employ software that allows a student, prior to enrolling in a course, to determine which courses are approved for course, and/or unit credit at other institutions. Though such a portal would most immediately benefit current college students, it should be designed with future California college students in mind, providing a platform for information for students and parents about financial aid, examinations, the application process and links to individual institutions. While such a portal should not be expected to supplant outreach and counseling for students and prospective students, it could supplement such efforts and offer prospective students and their families a chance to learn more at their own pace either before or after meetings with counselors or college visits.

An ancillary goal of such a portal would be to reduce some of the institutional barriers that currently exist between the California Community Colleges, the California State University and the University of California and allow current and prospective students and their families to experience the three segments as a single system.

**Recommendation 10:** The Legislature should develop incentives for the creation of a student-focused Internet portal that aggregates individual student records into master transcripts of classes they have taken at different institutions. The Legislature should require that sufficient privacy measures be incorporated into the portal and that California’s higher education institutions cooperate in the release of individual student data.
Conclusion

California’s hard-won budget stability offers the opportunity to start the long overdue discussion of how to expand public higher education and how to fund it. That discussion must recognize that the state’s financial resources are limited and will remain that way for years to come. It also should recognize that the current funding model, based on enrollment, is no longer sustainable given California’s need to significantly boost the number of graduates it produces.

The recovery that is helping the state’s finances also is generating new jobs, though not enough, and many of the new jobs require skills that presently unemployed Californians don’t have. More than ever before, our state’s businesses need highly educated workers, and our growing industries often have a difficult time finding them. The challenge, therefore, is to educate far more students, many with technical, engineering or science degrees, without dramatically increasing state spending for higher education.

To meet this goal, California’s community colleges, state universities and research universities must find new ways to operate. There is not enough money to do things the way they’ve been done in the past, and even if there were, we have to do far more than what we’ve done in the past.

One area for improvement deserves immediate and focused attention: Increasing completion rates for students who already have taken the step to enroll in college and university classes. Though the reasons for low completion rates are complex, finding ways to help students finish, and finish more quickly, translates directly into spending education dollars more efficiently and increasing access for more students. This effort should start first with the community college system and the California State University system, which offer the greatest potential for gains.

The broader challenge of increasing the number of graduates calls for a statewide strategy, statewide goals and a plan built around the needs of students and the needs of state as a whole. California was well served by the 1960 Master Plan for Higher Education, which provided a vision and shaped decisions for decades. But California has changed dramatically over the past 50 years. It needs a new Master Plan that fits tomorrow’s needs, one that preserves the values of quality, access and affordability.
The plan must have explicit goals as well, among them substantially increasing the number of graduates, integrating online learning into degree programs, and improving the administrative efficiency of California’s public higher education institutions.

The Legislature’s efforts to reengineer the original Master Plan have met limited success, in part because they did not adequately include representatives of the higher education institutions involved. Any successful plan will need their expertise and ultimately, their support. Such an effort also needs the perspective and experience of consumers of higher education – students, alumni, local government leaders, businesses, as well as economic development and civic groups.

The first Master Plan formalized the three-tier structure, essential then to ensure that competition among institutions didn’t lead to resource-devouring duplication. The opportunities offered by more regional approaches and advances in technology, particularly the use of online education, make it essential now to assess whether the three-tier structure still best serves the state’s needs, or whether more flexible approaches are desirable.

Developing a new Master Plan will take time; the Governor and Legislature should move quickly to start the process. Based on testimony that it heard during its study, the Commission recommends additional steps that the Governor and Legislature can take now that will help California close its higher education gap as the new Master Plan is drafted. These recommendations build on actions the Governor and Legislature have taken in recent months, such as the requirement for the California State University and the University of California to report on various outcome measures each year.

The Commission urges the Legislature to develop incentives for community colleges and public school districts and four-year universities to work more closely together on a regional basis, based on what it saw in Long Beach. The city’s “College Promise” is built on communication and coordination that helps students at the same time it benefits the school district, Long Beach City College and California State University, Long Beach.

The state took the first step in collecting outcome measures on how its four-year university systems are performing. Next year, it will have data that can be used as benchmarks for setting specific goals for the outcomes important to increasing the number of graduates and reducing average time to graduation. The Commission urges the Governor and Legislature to link some portion of future funding for all three segments to desired outcomes based on regularly collected data. In this, the
Commission reiterates and expands on its 2012 recommendation in its California Community Colleges study to devote at least some portion of new revenues to incentives for improving outcomes.

Finally, the Commission urges the Governor and Legislature to look beyond the hyperbole and controversy surrounding online education and to develop incentives for online programs that improve access, reduce bottlenecks and enhance students’ ability to earn course and unit credits that can be transferred between campuses and across segments. The segments already have committed to using some of their augmented state funding to this end. Online education comes in many forms, whether blended or flipped or MOOC. Online education already is enhancing how students learn, though one of the big lessons from the past year is that not all forms are appropriate for all students. Money invested in online education that helps underprepared students succeed would pay the biggest dividends to individual students and to the state.

Like other technological changes, online education has the potential to be transformational. That’s why those most heavily invested in the status quo – including faculty and university administrators – often seem to resist online teaching. They must be encouraged to view online learning as an exciting new tool that will enhance their work and allow California to expand the reach of public higher education. The Commission urges California’s public colleges and universities, and their faculties, to aggressively engage this challenge and to shape the results in ways that better serve students. If our schools hold fast to the past, we’ll see universities and colleges in other states seize leadership in this compelling new field. California, once – and still today – home of the finest public universities and colleges in the country, will lose its leadership role and no longer be the best. Or, if we move aggressively to embrace and perfect online learning, we will position our state to educate America’s leaders of the 21st Century.
Appendices & Notes

✓ Public Hearing Witnesses

✓ Notes
## Appendix A

### Public Hearing Witnesses

**Public Hearing on Higher Education**  
*August 28, 2012*  
*Sacramento, California*

<table>
<thead>
<tr>
<th>Witness</th>
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<tr>
<td>Steve Boilard, Managing Principal Analyst, Legislative Analyst’s Office</td>
<td>Charles B. Reed, Chancellor, California State University</td>
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<tr>
<td>Patrick M. Callan, President, Higher Education Policy Institute</td>
<td>Robert Shireman, Director, California Competes: Higher Education for a Strong Economy</td>
</tr>
<tr>
<td>Daniel M. Dooley, Senior Vice President for External Relations, University of California</td>
<td>Michele Siqueiros, Executive Director, The Campaign for College Opportunity</td>
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<td>Hans Johnson, Bren Policy Fellow, Public Policy Institute of California</td>
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**Public Hearing on Higher Education**  
*October 23, 2012*  
*Sacramento, California*

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<tr>
<th>Witness</th>
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<tr>
<td>F. King Alexander, President, California State University, Long Beach</td>
<td>Dennis Jones, President, National Center for Higher Education Management Systems</td>
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<tr>
<td>Brenda Bautsch, Senior Policy Specialist, National Conference of State Legislatures</td>
<td>Eloy Ortiz Oakley, Superintendent and President, Long Beach Community College District</td>
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<tr>
<td>John Aubrey Douglass, Senior Research Fellow, Center for Studies in Higher Education, University of California, Berkeley</td>
<td>Robert Tagorda, Assistant to the Superintendent, Long Beach Unified School District</td>
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Public Hearing on Higher Education
February 26, 2013
Long Beach, California

Ruth Claire Black, Executive Director, Cal State Online

Robert Powell, Chair, University of California Academic Senate and Professor, University of California, Davis

Dean Florez, President and Chief Executive Officer, Twenty Million Minds Foundation

Robert Samuels, President, University Council – American Federation of Teachers and Lecturer, University of California, Los Angeles

Diana Guerin, Chair, California State University Academic Senate and Professor, California State University, Fullerton

Sebastian Thrun, Co-founder, Udacity and Former Professor, Stanford University

Daphne Koller, Co-founder, Coursera and Professor, Stanford University

Keith R. Williams, Interim Director, UC Online Education and Senior Lecturer, University of California, Davis

David Longanecker, President, Western Interstate Commission for Higher Education
Notes


17. University of California Office of the President. See endnote 16. For the UC system, the four-year graduation rate for the 2007 entering class was 60 percent, an improvement from 37 percent for the 1992 entering class. The six-year graduation rate for UC system wide was 83 percent for the class that entered in 2005, up from 76 percent in 1002. The two-year graduation rate for transfers who arrived in 2009 was 53 percent. Of the transfers who enrolled at UC campuses in 2007, 85 percent graduated within four years.

18. California State University Budget Office. “Comparison Institute Fees.” [http://www.calstate.edu/budget/student-fees/comparison-fees/] Accessed September 20, 2013. Comparable institutions compiled by the California Postsecondary Education Commission. Note that the University of Maryland-Baltimore was not included in the median calculation because IPEDS does not have data from its 2005 cohort.


25. Colleen Moore, Nancy Shulock and Jeremy Offenstein. October 2009. “Steps to Success: Analyzing Milestone Achievement to Improve Community College Student Outcomes.” Page 3. Also, California Postsecondary Education Commission. March 2007. “California Higher Education Accountability: Goal – Student Success Measure: California Community College Students’ Degrees and Certificates Awarded and Successful Transfers.” [http://www.cpec.ca.gov/completereports/2007reports/07-06.pdf] Accessed September 20, 2013. The California Postsecondary Education Commission found that less than a third of first-time community college students who enrolled in a credit program during fall 2000 had either earned a two-year degree or transferred to a California public university by 2005. About 20 percent were still enrolled in the community college system after five years and over half of the students no longer were enrolled.


28. Colleen Moore and Nancy Shulock. See endnote 24. Fewer Latinos who reach that point complete a certificate, degree, or transfer (47%), compared to white (60%), Asian-pacific islander (58%), and black (53%) students.


33. Patrick M. Callan. See endnote 31.

34. Patrick M. Callan. See endnote 31.


38. John Aubrey Douglass. See endnote 35.


44. Little Hoover Commission. See endnote 9.


47. Christopher J. Steinhauser, Superintendent, Long Beach Unified School District.


50. F. King Alexander, President, California State University, Long Beach. Long Beach, CA. September 6, 2012. Personal communication.

51. Christopher J. Steinhauser. See endnote 47.

52. F. King Alexander. See endnote 50.


55. Christopher J. Steinhauser. See endnote 47.

56. Christopher J. Steinhauser. See endnote 47.

57. Christopher J. Steinhauser. See endnote 47.

58. Christopher J. Steinhauser. See endnote 47.

59. Christopher J. Steinhauser. See endnote 47. Also, Judy Seal. See endnote 49.

60. Christopher J. Steinhauser. See endnote 47.

61. Christopher J. Steinhauser. See endnote 47.


65. Long Beach College Promise. See endnote 64. Pages 2-3.

66. Long Beach College Promise. See endnote 64. Pages 1 and 2.


68. F. King Alexander. See endnote 50.

69. Christopher J. Steinhauser. See endnote 47.

70. Eloy Ortiz Oakley. See endnote 48.


73. Dennis Jones and Cheryl L. Blanco. See endnote 71.


81. Kevin Corcoran. See endnote 78.


83. Kevin Corcoran. See endnote 78.


94. UC Online. http://www.uconline.edu/


Little Hoover Commission Members


ASSEMBLYMEMBER KATCHO ACHADJIAN (R-San Luis Obispo) Appointed to the Commission by Speaker of the Assembly John Pérez in July 2011. Elected in November 2012 to the 33rd Assembly District and re-elected to the 35th District in November 2012. Represents Arroyo Grande, Atascadero, Grover Beach, Guadalupe, Lompoc, Morrow Bay, Paso Robles, Pismo Beach, San Luis Obispo, Santa Maria and surrounding areas.

VIRGINIA ELLIS (D-Sacramento) Appointed to the Commission by the Senate Rules Committee in January 2011. Former Sacramento bureau chief for the Los Angeles Times and award-winning political investigative reporter.

SENATOR BILL EMMERSON (R-Redlands) Appointed to the Commission by the Senate Rules Committee in February 2013. Elected in June 2010 to represent the 37th Senate District. Re-elected in November 2012 to the 23rd District, representing portions of Los Angeles, Riverside and San Bernardino counties, including Banning, Beaumont, Big Bear Lake, Calimesa, Hemet, Highland, Loma Linda, Menifee, Rancho Cucamonga, Redlands, San Bernardino, San Jacinto and Yucaipa.


PEDRO NAVA (D-Santa Barbara) Appointed to the Commission by Speaker of the Assembly John Pérez in April 2013. Advisor to telecommunications industry on environmental and regulatory issues and to non-profit organizations. Appointed in 2011 to the California Department of Fish & Game Blue Ribbon Commission to assist in the development of the Wildlife Strategic Vision. Former state Assemblymember. Former civil litigator, deputy district attorney and member of the state Coastal Commission.

LOREN KAYE (R-Sacramento) Appointed to the Commission by Governor Arnold Schwarzenegger in March 2006 and reappointed by Governor Schwarzenegger in December 2010. President of the California Foundation for Commerce and Education. Former partner at KP Public Affairs. Served in senior policy positions for Governors Pete Wilson and George Deukmejian, including cabinet secretary to the governor and undersecretary for the California Trade and Commerce Agency.

TOM QUINN (D-Marina del Rey) Appointed to the Commission by Governor Edmund G. Brown Jr. in February 2012. Chairman and CEO of City News Services Inc., managing partner of Sierra Investments, president of Americom Broadcasting and chairman of Reno Media Group.

ASSEMBLYMEMBER ANTHONY RENDON (D-Lynwood) Appointed to the Commission by Speaker of the Assembly John Pérez in February 2013. Elected in November 2012 to represent the 63rd Assembly District. Represents Bell, Cudahy, Hawaiian Gardens, Lakewood, Lynwood, Maywood, Paramount and South Gate and the North Long Beach community.

SENATOR RICHARD ROTH (D-Riverside) Appointed to the Commission by the Senate Rules Committee in February 2013. Elected in November 2012 to the 31st Senate District, representing Corona, Coronita, Eastvale, El Cerrito, Highgrove, Home Gardens, Jurupa Valley, March Air Reserve Base, Mead Valley, Moreno Valley, Norco, Perris and Riverside.

SUMI SOUSA (D-San Francisco) Appointed to the Commission by Speaker of the Assembly John Pérez in April 2013. Officer of policy development for San Francisco Health Plan. Former advisor to Speaker Pérez. Former executive director of the California Health Facilities Financing Authority, special assistant to San Francisco Mayor Willie Brown, Jr., and member of the California Children and Families Commission, the California Health Facilities Financing Authority and the Asian Pacific Youth Leadership Project.

Full biographies available on the Commission’s website at www.lhc.ca.gov.
“Democracy itself is a process of change, and satisfaction and complacency are enemies of good government.”

Governor Edmund G. “Pat” Brown, addressing the inaugural meeting of the Little Hoover Commission, April 24, 1962, Sacramento, California