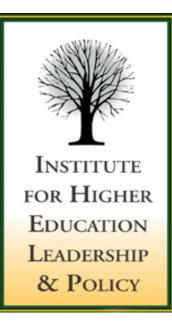
Policy Issue Report

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Diminishing Access to the Baccalaureate through Transfer: The Impact of State Policies and Implications for California

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EXECUTIVE SUMMARY

The ability to transfer from a community college to a four-year university is at the core of California's Master Plan promise of access to higher education. Transfer is vitally important in California because community colleges enroll three-fourths of the state's college students and an even larger share of African American and Latino college students. But budget constraints and enrollment pressures have led to a set of policy responses that are reducing access to the baccalaureate for the state's underrepresented students, whose educational attainment is critical to the state's economic and civic health.

The pathway to transfer is narrowing due to:

- budget-related enrollment restrictions in all three segments;
- increasing transfer admissions criteria;
- ✤ decreasing college affordability; and
- crowding out of traditional community college students by other students.

The state already has an inadequate record of postsecondary educational achievement relative to other states and has persistent achievement gaps across population groups. Lawmakers must address the rising barriers to transfer if the state is to educate its people to meet the demands of the new century for educated citizens and a competitive workforce.

Accordingly, we raise a set of questions in three areas that deserve the attention of policymakers:

- the role of the community colleges in lower division preparation;
- the capacity of four-year institutions to accommodate transfer students; and
- the viability of current approaches to balancing transfer with the variety of other missions assigned to the community colleges.

Policymakers and advisors tend to assume that the community colleges provide a safety net for everyone who does not gain initial access to a university. This paper questions whether the community colleges have the funding or the institutional capacity to fulfill the expectations that have been set for them. It points out some value conflicts in asking the colleges to serve both as a safety net for the educationally disadvantaged and as an efficient alternative for the first two years of a university education. It urges that more attention be given to how institutional capacity across postsecondary education can best be used to improve student success.

Our purpose is to help policymakers understand the consequences of their policy decisions. Even in a time of severe fiscal constraint, higher education policy and finance can be driven by conscious, considered decisions about how to balance the interests of students, the state, and taxpayers. The state needs to find better ways to target its scarce resources to generate the best educational outcomes for Californians. Emerging policies reflect a search for new solutions but need more consideration within the context of the broader issues raised in this paper.

Introduction: A Shift in the Landscape of California Higher Education

California policymakers are facing their biggest challenge in financing public higher education since the adoption of the Master Plan in 1960. Starting with the denial of qualified transfer applicants by the University of California (UC) and the California State University (CSU) in 2003-04 and continuing with the planned redirection of UC/CSU-eligible freshmen to the California Community Colleges (CCC) and the resulting campus admissions policies for 2004-05, the state is no longer meeting its commitment to admit students according to the eligibility criteria laid out in the plan.¹ This paper highlights the threats to the transfer function posed by the severe fiscal crisis and the policies that it has fostered. We focus in particular on underrepresented minority students because their educational attainment is critical to the economic and social health of the state in the coming decades.

California has recently proposed a set of state goals to drive policy decisions for higher education.² These goals include achieving participation and completion rates across the population sufficient to sustain the social and economic benefits that Californians expect. Raising barriers to the completion of a baccalaureate education by the state's growing populations of color will prevent the state from achieving these goals.

As the Legislature and the Governor consider how best to target scarce state subsidies for postsecondary education, they should be fully aware of the likely consequences of their policy decisions throughout the whole postsecondary system. There appears, however, to be an implicit assumption in the Governor's Budget, as well as in the Legislative Analyst's recommendations, that limitations on access to UC and CSU are manageable because the community colleges provide a safety net that can be called upon to serve everyone else. This paper challenges that assumption by describing how new and proposed policies strain the capacity of the community colleges and reduce the viability of the transfer function. Our purpose is not to defend the status quo, as set forth in the Master Plan, but to advocate for a thorough analysis of proposed changes. We believe that the emerging policies raise core questions about both the funding and the mission of the community colleges that will need more explicit attention if California is to meet the educational requirements of the new century.

California's Inadequate Record of Educational Achievement

A few facts call attention to the sobering challenge facing California policymakers:³

- California is below the national average in the percent of adults, ages 25-34, that have a bachelor's degree;
- California is in the bottom one-third of states in the percent of high school graduates that earn a bachelor's degree within six years;
- California is last among states in the percent of bachelor's degree completers that are Latino and African American compared to their share of the 18-year-old population.

The following table further illustrates this last point. It shows that California loses more Latinos and African Americans along the path to the baccalaureate, in relative terms, than do other states.

Table 1 Percent that is African American/Latino at Various Stages of Education

	% of 18-year	% of High School	% of First-Time	% of BA	Total
	olds	Graduates	Freshmen	Completers	Drop-off
California	48%	40%	31%	20%	- 28%
National avg.	30%	24%	21%	14%	- 16%

These data are alarming from both a social equity and an economic development perspective. The California economy depends more than other states on a highly trained workforce.⁴ We should be educating more, not fewer, of our young adults and we should ensure that Californians from all racial/ethnic groups are educated for the new economy.

Importance of the Transfer Function in California

California's 1960 Master Plan for Higher Education reserved four-year college attendance for the state's most well-prepared high school graduates but promised all students, regardless of preparation, a chance to pursue a baccalaureate degree by first attending a community college. Students who successfully fulfilled a minimum set of requirements at a community college were guaranteed a place at one of the public four-year institutions.

Community colleges were designed to be a more substantial part of the higher education system in California than in many other states. Community colleges enroll approximately 75% of California's college students, while the national average is less than 40%.⁵ Community colleges play an even greater role in the education of California's underrepresented minority students. Nearly 80% of African American and Latino college students in California are enrolled in the community colleges.⁶ With the Latino population ages 15 to 24 projected to increase by 54% between 2000 and 2010,⁷ the reliance of the state on its community college sector will likely grow. A functional transfer process is therefore essential to providing equitable access to the social, economic, and civic benefits of a baccalaureate education.

Maintaining the Master Plan promise of access to the baccalaureate for community college students requires that the colleges have adequate resources and institutional capacity to prepare students for transfer and that the state's public universities have the capacity to accommodate all students who meet the requirements and seek to transfer.⁸ A number of recent developments are threatening these basic conditions for an effective transfer function.

Threats to Access for Community College Students

California's promise of access to the baccalaureate through the community college transfer function is under threat from:

- (1) budget-related enrollment restrictions in all segments;
- (2) increasing transfer admissions criteria at UC and CSU;
- (3) decreasing college affordability; and
- (4) a potential crowding out of traditional community college students by UC/CSUeligible students attending community college.

(1) Budget-related Enrollment Restrictions in All Segments

After increasing steadily for several years, expenditures on the three public segments leveled off in 2002-03, then fell by nearly 7% in 2003-04. The Governor's proposed budget for 2004-05 includes no funding for enrollment growth at UC or CSU, and imposes substantial cuts to both systems – a 7% reduction for UC and 8% for CSU. Cuts in state appropriations to UC and CSU are only partially offset by increased student fee revenue, more so at UC than at CSU. The budget includes a 3% enrollment increase for the CCC (about 50,000 students), which accommodates the normal growth projected by the Department of Finance (about 38,000) as well as the students proposed for redirection from UC and CSU (7,000) but falls far short of restoring funding for the 90,000 drop in enrollment between Fall 2002 and Fall 2003.⁹

Declining state appropriations are all the more consequential because they have occurred during a time of sharp enrollment growth and rapidly increasing educational costs for items such as health benefits, retirement, and utilities. Table 3 on page 9 shows that appropriations per FTES have decreased over five years at UC and CSU even without adjusting for inflation. It shows a much greater decline when inflation is accounted for, as well as a significant decline in CCC funding. Finally, the table shows that even when fee revenue is included there has been a decline in revenues per FTES in all segments. The combined effect of reduced revenues, enrollment growth, and increased costs has been the inability of the system, collectively, to accommodate projected growth as it has in the past.

Restricted access to community college courses. Budget constraints have led to significant enrollment reductions in the community colleges as course offerings have dropped by about 6% systemwide and as much as 25% in some districts.¹⁰ As noted above, headcount enrollment declined by 5.2% (about 90,000 students) between Fall, 2002 and Fall, 2003.¹¹ The impact of course section reductions has not fallen evenly across groups as students have been forced to engage in a stiff competition for seats. The greatest loss of access has been for students who are not as savvy to deadlines, fees, financial aid, and ways to navigate the system. These students don't know how to "play the game" of getting into "full" classes. Nor are they as likely to have the means or the schedule flexibility to take courses at multiple locations at whatever times they can find them.¹² In addition, first-time students have been disproportionately shut out because continuing students receive priority in registering for classes.¹³ This means that the state is losing the opportunity to enroll new students in college. Since the 3% growth funding in the Governor's budget is not nearly enough to accommodate a reversal of this decline, we should expect the stiff competition for seats to continue to shut out students, many of whom will be first generation and underrepresented minority students.

Restricted access to UC/CSU as a transfer student. Both UC and CSU restricted the enrollment of transfer students this year in an effort to match enrollment with available resources. UC did not accept any transfers for the winter term, returning all of the approximately 1,600 applications submitted by students seeking to transfer.¹⁴ Many CSU campuses did not accept any transfer applications for the Spring 2004 term. Application patterns for the next academic year (2004-05) suggest that the enrollment management measures are producing pent-up demand among community college students. The number of students applying to transfer to UC and CSU for Fall 2004 reached record levels, increasing by 13% and 27%, respectively, over Fall 2003.¹⁵

With the lack of funding for enrollment growth at UC and CSU, the availability of transfer slots will be further limited. The Governor's Budget acknowledges that "UC and CSU may need to expand enrollment growth-control measures that were initiated in 2003-04."¹⁶

(2) Increasing Transfer Admissions Criteria at UC/CSU

Unlike the community colleges, which limit enrollment primarily through the number of course sections offered, UC and CSU can adjust admissions standards. An undergraduate program can be designated as "impacted" when it receives more applications from fully qualified applicants than it can accommodate within its instructional resources and physical capacity. In some cases, entire campuses are designated as impacted because all programs are enrolled to capacity. When a program or campus is impacted, additional requirements for transfer are imposed above those specified in the Master Plan, thereby increasing selectivity in the admissions process. If an eligible student applies to an impacted campus and is not accepted, efforts are made to redirect or refer the student to a campus where there is an opening in the student's field of interest.

In the CSU system, the San Diego, San Luis Obispo, and Long Beach campuses are impacted in all programs. Across the system the number of impacted programs is growing rapidly, from 30 in 2000-01 to 72 in the current year.¹⁷ As regional universities, CSU campuses offer a "local area guarantee" to transfer students who attend a community college in their region.¹⁸ Local students must be admitted to an impacted campus according to the basic CSU admission criteria; out-of-region applicants must meet the more competitive supplemental criteria. However, admission to an impacted campus does not guarantee admission to a specific program. In 2002-03, nearly 1,800 transfer applicants who met the basic eligibility requirements were denied admission to the CSU system—a 133% increase over two years.¹⁹

UC offers admission *somewhere in the system* to all transfer-eligible applicants, although the system relies more heavily than CSU on a redirection process. Many UC programs require a GPA higher than the minimum of 2.4 specified in the Master Plan, some substantially higher, and also require additional coursework for transfer applicants above the minimum criteria. Many community college students who are UC-eligible according to the Master Plan, in effect are only eligible to attend UC Santa Cruz or UC Riverside, as those are the only campuses where many programs can accommodate transfer students meeting only the minimum criteria.

It is difficult to estimate the effect of increased admission standards at UC and CSU on transfer, as we do not know how many students are discouraged from ever applying for admission by the higher requirements at their campus or program of choice. In addition, neither CSU nor UC could provide specific data on the enrollment rate of transfer applicants who are redirected to alternate campuses, but both segments agreed that it is low. As more UC/CSU programs increase their admission requirements due to impaction, eligibility for transfer becomes a moving target and transfer becomes more elusive. Many students, particularly those who are placebound, will find redirection to be an unmanageable barrier to transfer due to work, family, and/or financial considerations.

(3) Decreasing Affordability of College

On top of the 30% fee increases that went into effect at UC and CSU in 2003-04, the Governor's 2004-05 budget includes several proposals that would increase the amount students pay for their education:

- a 10% fee increase at UC and CSU beginning Fall, 2004 (the UC Regents are considering raising fees by 15%);
- a reduction in the availability of the state's need-based Cal Grant financial aid through a 10% reduction in the maximum allowable income for grant recipients;
- a decoupling of Cal Grant award levels from UC and CSU fee levels so that the higher fees proposed for those systems will not be accompanied by higher financial aid;
- a reduction in the set-aside of revenues generated from student fee increases for needbased institutional aid (from 33% to 20% of the revenues); and
- a 44% reduction in the maximum Cal Grant award for students attending independent and private institutions.

With student fees in California's public colleges and universities well below national averages, modest increases are reasonable provided they are accompanied by sufficient financial aid.²⁰ The Governor's proposals, however, will reduce the affordability of college by reducing aid as fees rise. This decreased affordability will deter some community college students from transferring to public or private institutions, particularly students from lower-income and underrepresented minority populations, as research shows that enrollment decisions of these groups are more price sensitive.²¹ Decreased college affordability can also have an indirect impact on transfer opportunities for community college students if more UC/CSU-eligible students choose to begin in a community college where they pay only 10 or 20% as much in student fees, respectively.²² As we discuss more fully below, these students could crowd out students for whom community colleges represent the only pathway to the baccalaureate.

(4) Crowding Out of Traditional Community College Students

We noted above that a fierce competition for seats in community college classrooms is forcing out less prepared or less savvy students – those said to have less "educational capital" from family and personal experiences with college. A byproduct of the Governor's proposed policies could be additional displacement of traditional community college students.

Redirection of UC/CSU-eligible students. The Governor proposes to redirect 10% of UC/CSUeligible freshmen (7,000 students) to the community colleges as a means to reduce state costs and accommodate students somewhere in the system. The 3% enrollment growth funding for the CCC is intended to cover these students as well as normal projected growth. As we have explained, however, demand for enrollment in the community colleges should far exceed this level of funding.²³ If so, students who are redirected from UC or CSU, should they choose to attend a community college, will exacerbate the problem that traditional community college students face in the competition for seats. **Reduced Cal Grant aid to students attending private institutions**. The Governor's proposal to reduce by 44% (from \$9,708 to \$5,482) the amount of Cal Grant aid provided to students attending private colleges will increase the out-of-pocket cost of private college unless the colleges can make up the difference from institutional aid funds. This could decrease the use of private sector capacity and increase already severe capacity problems at the public universities. This could, in turn, push more students to the community colleges and exacerbate the crowding out of students for whom community colleges are the only route to a baccalaureate education.

Conclusions and Policy Issues: How Much Can Community Colleges Do?

Budget constraints and enrollment pressures have led to a set of policy responses that are reducing access to the baccalaureate for underrepresented minority students whose educational attainment is critical to the state's economic and civic health. The pathway to the baccalaureate for so many of these students is community college transfer. That pathway is narrowing due to capacity constraints at the community colleges and the universities, increased admission requirements, reduced affordability, and displacement by other students. If present trends continue, many of the underrepresented minority students traditionally served by the community colleges will find transfer to be an unreachable goal.

As policymakers consider their options in the coming months and years, they should be careful about what they ask of the community colleges. While it is tempting to view the community colleges as a safety net and ultimate guarantor of the Master Plan promise of access, that expectation can be realized only if the community colleges are assigned a manageable mission and provided with sufficient resources. We believe that on both fronts – mission and resources – there are reasons for concern that the community colleges cannot deliver the level of performance that lawmakers seem to expect. Most informed observers are probably more familiar with the resource issue: they know that community colleges are poorly funded and have to stretch their dollars too thinly. But issues of mission are rarely broached because those within the community colleges subscribe fully to the notion that they could, in fact, be all things to all people if they just had enough money. We want to break the silence on the mission issue.

What follows is a set of policy issues and related questions aimed at framing discussions about baccalaureate education in California and the role of the community colleges. Even in a time of severe fiscal constraints, higher education policy and finance can be driven by conscious, considered decisions about how to balance the interests of students, the state, and taxpayers to generate the best educational outcomes for Californians. There has been a tendency in California to rest on the past promise of the Master Plan and fail to address some of the more difficult questions that may not have been vital in the past, but are central to today's circumstances.

Issue #1: The Role of the Community Colleges in Lower Division Preparation

Related policy questions:

• Should the community colleges play a larger role in delivering lower division baccalaureate education to students whom we have historically defined as eligible for UC or CSU? If so, what would be the impact on the undergraduate programs at UC and CSU?

- What is the likely impact on student completion, time-to-degree, and on the state's overall degree production, of redirecting UC/CSU-eligible students to the CCC? How much will the state actually save by greater use of the community colleges once changes to completion rates and time-to-degree are accounted for?
- Should subsidy levels at the CCC be increased so that the breadth of curricular and cocurricular programs can be comparable to those at UC and CSU? If not, how likely are UC/CSU-eligible students to accept redirection?
- Is it possible to accommodate more UC/CSU-eligible students without crowding out or reducing the priority given to traditional CCC students? Alternatively, should priorities be set among traditional CCC students in order to ration available spaces?

The bottom line. Policymakers need to recognize the potential value conflicts at play. On the one hand we resist notions of accountability and efficiency for the CCC that we more easily apply to the four-year university (e.g., completion rates, time to degree) because we see the CCC as providing needed opportunities for many students who are not yet prepared for the rigors of a university education. We value the colleges as a safety net for the educationally disadvantaged or underserved. On the other hand we increasingly expect those institutions to be efficient and acceptable substitutes for a university lower division education. It may be too much to expect from one institution, particularly one that is so poorly subsidized. This paper has described how current policies are beginning to crowd out less well prepared students. Policymakers may well decide to target scarce state subsidies towards students who are better prepared to succeed, but they should make these choices purposefully and without misconceptions.

Issue #2: The Capacity to Accommodate Transfer Students

Related policy questions:

- What should access mean: is access to transfer provided if a student meeting minimum requirements is admissible to just one campus? How much access is enough to provide reasonable opportunities for place-bound students?
- What happens to transfer applicants who are redirected to a campus to which they did not apply? What are their educational outcomes?
- What has been the effect of growing "impaction" on the underrepresented minority students who have been seeking to transfer?
- Are regional-based admission and enrollment management strategies better able to meet students' needs than statewide, segment-based approaches or do they introduce unwarranted inequities across the state with respect to access to higher education?
- Should more upper division access be provided in part by reallocating enrollment funding from lower division enrollment or by finding more efficient ways to finance education?
- How can available capacity in the private/independent sector be best used? What are the consequences for California if "redirected" students opt out of the state's public institutions?

The bottom line. More capacity to accept transfer students is needed, and not simply at one or two campuses in each system. It makes little sense to be working throughout the state to increase transfer preparation and improve articulation when eligible transfer students are being effectively denied admission to the UC and CSU because of a lack of capacity at all or most campuses.

Increasing reliance on "redirection" of first-time freshmen to the CCC can only ease the transfer capacity problem if a formal revision of the 60/40 policy is enacted.

Issue #3: Balancing Transfer with Other Missions of the Community Colleges

Related policy questions:

- Does the heavy workload at the CCC for remediation, basic skills, adult education, and occupational education limit their capacity to play a larger transfer role at every campus?
- Can K-12 and adult education be relied on more heavily to prepare students *before* they enroll in community colleges?
- How can the state best target available slots at the CCC to improve student success without unduly limiting educational opportunities?
- What is the expected benefit, in terms of improved student choices and student outcomes, of investing in more counselors at the community colleges and how does this investment compare to other uses of state subsidies?
- Can new models for delivering the current array of instructional programs better meet students' educational goals and state workforce needs? How can the state organize its institutions to promote the best overall educational outcomes for its people and its economy?

The bottom line. The hard truth is that too many students spend too much time in the community colleges without completing a transfer curriculum or earning a certificate or degree. The argument that students enroll in community colleges for a variety of reasons other than to complete courses of study is losing its appeal as the shortcomings of the state's postsecondary education enterprise come increasingly into focus. As controversial as it may be to suggest new approaches for delivering the various kinds of instructional programs offered by the CCC, it is hard to justify the status quo in the face of such large performance gaps and such unmet needs for well-educated citizens and well-trained workers to power the state's economy and advance its quality of life. The state needs to find better ways to use its scarce resources to ensure that students who enter the community colleges are better prepared to succeed, have better guidance as to their options and the routes for pursuing them, can make informed choices as to whether and when they are ready to engage in a transfer curriculum, and have access to the courses they need in the order in which they need them.

A Final Note on Data

This report has raised serious questions about the capacity of our institutions and policies to produce sufficient and equitable learning outcomes throughout the state's growing populations. It has set forth a challenging list of policy issues that need attention. But in addition to the will to confront these issues, the state badly needs better data – most specifically it needs a student-level tracking system that links data across the segments and their many institutions. With transfer the key to linking access to success in baccalaureate education, a student tracking system is the only way to fully understand the impact of the state's policy choices on educational outcomes as students move through the system.

Higher Education Revenue and Full-Time-Equivalent Enrollment (FTES)								
	1999-00	2000-01	2001-02	2002-03	2003-04 Est.	2004-05 Proposed		
Gener	General Fund Appropriation (in millions):							
UC	\$2,716	\$3,192	\$3,323	\$3,150	\$2,868	\$2,671		
CSU	\$2,175	\$2,429	\$2,681	\$2,697	\$2,623	\$2,410		
CCC	\$4,137	\$4,510	\$4,701	\$4,861	\$4,685 [*]	\$4,901		
Total	\$9,029	\$10,131	\$10,705	\$10,708	\$10,176	\$9,981		
Student Fee Revenue (in millions):								
UC	\$619	\$644	\$710	\$765	\$1,084	\$1,271		
CSU	\$635	\$664	\$735	\$819	\$1,017	\$1,166		
CCC	\$155	\$157	\$164	\$169	\$265	\$356		
Total	\$1,409	\$1,465	\$1,609	\$1,754	\$2,366	\$2,793		
Full-Time Equivalent Enrollment (FTES):								
UC	165,900	171,270	185,304	196,188	198,628	199,428		
CSU	281,782	290,554	316,395	331,353	334,914	341,587		
CCC	998,297	1,041,829	1,105,000	1,128,954	1,104,030	1,137,150		
Total	1,445,979	1,503,653	1,606,699	1,656,495	1,637,572	1,678,165		

Table 2 Higher Education Revenue and Full-Time-Equivalent Enrollment (FTES)

Source: California Department of Finance Governor's Budget Summary for 2001-02 through 2004-05. * Adjusted for \$200 million of costs incurred in 2003-04 that will be paid for in 2004-05.

Segment Revenues Have Not Kept Pace with Enrollment Growth and Inflation							
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	
					Est.	Proposed	
General Fund Appropriation per FTES:							
UC	\$16,370	\$18,635	\$17,931	\$16,056	\$14,440	\$13,391	
CSU	\$7,720	\$8,360	\$8,473	\$8,140	\$7,830	\$7,054	
CCC	\$4,144	\$4,329	\$4,254	\$4,305	\$4,244*	\$4,310	
General Fund Appropriation per FTES (in constant 2004 dollars*):							
UC	\$18,970	\$20,816	\$19,269	\$16,847	\$14,801	\$13,391	
CSU	\$8,946	\$9,339	\$9,105	\$8,541	\$8,026	\$7,054	
CCC	\$4,802	\$4,836	\$4,572	\$4,517	\$4,350	\$4,310	
General Fund Appropriations Plus Student Fee Revenue per FTES (\$2004):							
UC	\$23,295	\$25,015	\$23,386	\$20,940	\$20,395	\$19,764	
CSU	\$11,556	\$11,892	\$11,602	\$11,134	\$11,137	\$10,466	
CCC	\$4,982	\$5,004	\$4,731	\$4,675	\$4,596	\$4,623	

Table 3

Source: California Department of Finance Governor's Budget Summary for 2001-02 through 2004-05. * Inflation adjustment based on the California CPI-U. The Higher Education Price Index (HEPI) is only available through 2002.

Endnotes

- ¹ The Legislative Analyst's Office has questioned whether UC and CSU are computing eligibility appropriately and the California Postsecondary Education Commission is updating its eligibility study. Our point is that eligibility, as currently understood and communicated to applicants, is not being honored for the first time. As an example of campus admissions policies, we cite the CSU, Northridge policy to reduce freshmen admissions by 10% and guarantee admission only to eligible students from their "primary service region" (http://www.csun.edu/~presofc/enrollment.html).
- ² SB 1331 (Alpert and Scott) sets forth four state policy goals to form the basis for a new higher education accountability system.
- ³ All of these data are from the website maintained by the National Center for Higher Education Management Systems (NCHEMS) at www.higheredinfo.org.

⁴ California ranks third in the nation in the State New Economy Index, which measures, in part, a state's economic dependence on high technology and other "knowledge jobs" (those requiring at least a two-year degree). See www.neweconomyindex.org. ⁵ National Center for Education Statistics (2003). Digest of education statistics, 2002. Washington, DC: US Department of Education.

⁶ California Postsecondary Education Commission on-line student data, Total Enrollment by Segment by Student Level by Ethnicity (Undergraduates), Fall 2002. Excludes "no response" category.

⁷ California Department of Finance (1998). County population projections with age, sex and race/ethnic detail. Sacramento, CA. ⁸ It also requires a well-functioning system of course articulation, which is a continuing struggle in California and is outside the scope of this paper.

⁹ Due to budget reductions, community college course offerings were reduced substantially, leading to a reduction in enrollment between Fall, 2002 and Fall, 2003 of 115,000 students (Patrick Perry, Vice Chancellor, Community College Chancellor's Office.). About 25,000 of this 115,000 is attributable to the elimination of physical education courses delivered to concurrentlyenrolled high school students, leaving a drop in college-age enrollments of 90,000-a decline of 5.2%. There is no reason to believe that students will not again try to enroll in the community colleges. (The growth projection of 38,000 was obtained from the Department of Finance Demographic Research unit and reflects normal demographic trends).

¹⁰ California Community Colleges Chancellor's Office (2003). California community colleges fall 2003 preliminary enrollment report. Sacramento, CA.

¹¹ This figure is net of the 25,000 high school students who were concurrently enrolled in physical education classes.

¹² Interviews with 25 community college administrators, December, 2003.

¹³ California Community Colleges Chancellor's Office (2003). Access lost: An examination of supply constriction and rationing in the California Community College system. Sacramento, CA., p.16.

¹⁴ Steve Handel, Director of Transfer Enrollment Planning, UC Office of the President. These applications represented roughly 10% of annual transfer applications.

¹⁵ Data for CSU provided by Larry Glasmire, Director of Enrollment Analysis at CSU, Sacramento. Data for UC from UC Office of the President, "More Transfer, Fewer Freshman Applicants for Fall 2004," UC Notes, February 2004. This includes all transfer applicants to UC from within California, not only those from California community colleges.

¹⁶ California Department of Finance, *Governor's Budget Summary* 2004-05, p.72.

¹⁷ Leon Washington, Associate Director of Enrollment Management Services, CSU Chancellor's Office.

¹⁸ California State University Office of the Chancellor (2002). The California State University enrollment management policies and practices. Long Beach, CA: Author.

¹⁹ California State University (2003). CSU Statistical Abstract 2002-2003. Long Beach, CA.

²⁰ See discussion in Legislative Analyst's Office, Analysis of the 2004-05 Budget Bill, pp. E198-200 and E214-215.

²¹ Hossler, D., Hu, S., & Schmit, J. (1999). Predicting student sensitivity to tuition and financial aid. Journal of Student Financial Aid, 28(4), 17-33; Kaltenbaugh, L. S., St. John, E. P. & Starkey, J. B. (1999). What difference does tuition make? An analysis of ethnic differences in persistence. Journal of Student Financial Aid, 29(2), 21-31.

²² Using full-time student fees for 2003-04 of \$5,530 for UC, \$2,572 for CSU and \$540 for CCC.

²³ We recognize that "demand" is an ambiguous concept, as it reflects costs, economic conditions, and other factors. We use it here as it is projected by the Department of Finance and CPEC to reflect population growth and participation rates.