

ENSURING ACCESS WITH QUALITY TO CALIFORNIA'S COMMUNITY COLLEGES

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Preface

In its 1960 Master Plan for Higher Education, California became the first state to adopt an explicit public policy extending college opportunity to every adult who could benefit from it. The primary responsibility for implementing this vision was assigned to the California Community Colleges, a system that has since become the foundation of college opportunity in the state. Too few people realize the critical role that the community colleges have played in making California's tripartite higher education system a national and world leader for over four decades. Although the equality of opportunity envisioned by the Master Plan has never been fully realized, most Californians seeking academic degrees or employment training have done so at the community colleges. In this new century, renewed commitment to college opportunity is urgently needed—more so than ever before. As this report shows, however, the foundation of the state's longstanding commitment to college opportunity—that is, the community colleges themselves—has eroded substantially.

Today, the knowledge-based, global economy makes extensive education and training beyond high school a state policy goal of highest priority, one with serious implications for virtually all Californians. The broad availability of postsecondary education expands the personal and employment opportunities of every state resident; it improves the economic competitiveness and well-being of communities and the state as a whole; and it enhances the state's democratic values and institutions. At the same time, California's 1960 promise of opportunity has become problematic. The chapters that follow are a call for action to California's educational, governmental, philanthropic, and civic leaders. All must share responsibility to renew, preserve, and extend the opportunities that have shaped California for almost a half-century. For the good of all, the current generation of Californians must be at least as well educated as our own.

The two studies that make up this report were conducted from January 2003 through January 2004 under the auspices of the National Center for Public Policy and Higher Education at the request of The William and Flora Hewlett Foundation. In the first four chapters of this report, Gerald Hayward, Dennis Jones, Aims McGuinness, Jr., and Allene Timar report on the project's initial phase: identification of the central issues facing California higher education generally and the California Community Colleges particularly in responding to projected enrollment demand through 2010. These chapters were completed in the first half of 2003, prior to the enactment of the state budget for 2003–04. In the postscript, Nancy Shulock offers an initial analysis—as of November 2003—of the

impact of the 2003–04 budget on the California Community Colleges and on selected districts, and examines the policy implications of the 2004–05 budget proposed by Governor Arnold Schwarzenegger in January 2004.¹

The National Center is grateful to these authors for their thoughtful and pointed analyses of the current crisis and prospective challenges facing the California Community Colleges. For the Hewlett Foundation and others, these studies and this report establish the need for strategic interventions during this decade to maintain and enhance the historic role of the state and its community colleges: meeting the needs of most Californians for access to higher education and attainment of their educational goals.

THE CONTEXT FOR IMPROVING ACCESS AND QUALITY AT THE COMMUNITY COLLEGES

Seven major contextual conditions or factors underlie this report, its findings, and its recommendations. I would emphasize that these conditions present facts that no informed observer would dispute.

1. **Enrollment increases.** The “tidal wave” of potential college students is projected to increase overall demand for higher education in California by more than 700,000 students in this decade. Approximately two-thirds of these new enrollments will attend a community college as the initial entry point into higher education if the opportunity is available to them. The largest enrollment growth will be heavily concentrated in five southern California counties; half the growth in the state will be in 15 of the 72 community college districts.
2. **Shifting demographics.** The demography of California, particularly of young Californians currently moving through the public schools, is changing rapidly. Increasing proportions of Hispanic students, first-generation college students, and students from low-income families are attending college.
3. **Low public visibility.** There is little public awareness of the increasing demand for higher education and of the threats to fulfilling that demand.
4. **Need for an educated populace.** The knowledge-based economy limits the employment prospects of the undereducated and increasingly requires individuals to have education and training beyond high school if they are to compete for the kinds of employment that would support a middle-class lifestyle.

¹The postscript is based on Nancy Shulock, “The Impact of Budget Reductions and Enrollment Growth on Access and Quality in the California Community Colleges,” unpublished report prepared by the Sacramento Institute for Higher Education Leadership & Policy for the National Center for Public Policy and Higher Education, January 25, 2004.

5. **Poor preparation.** Many college students and prospective college students are inadequately prepared for college-level academic work.
6. **Hemorrhaging educational pipeline.** In California, for every 100 ninth graders, 70 graduate from high school four years later; of these 70 graduates, 37 enroll in college; of the 37 who enter college, 25 are still enrolled in the sophomore year; and of these 25, 19 graduate with an associate's degree within three years or a bachelor's degree within six years. California's production of baccalaureate degrees falls well below the leading states.
7. **State budgetary difficulties.** The state government is in financial crisis. For the first time in its modern history, California simultaneously faces unprecedented demands for higher education enrollment *and* declining state financial resources.

These seven conditions will challenge all sectors of California higher education, but their cumulative impact will fall most heavily on the community colleges—the campuses that enroll most California college students.

Along with this list of seven conditions, a set of perennial weaknesses plague California education and inhibit responsiveness and reform: weak linkages across education sectors, from public schools to community colleges and universities; little incentive for collaboration across sectors; and, at all levels, few incentives and little accountability for local and regional collaboration among educational institutions. In the aggregate, these weaknesses contribute to poor preparation for college, to lower-than-acceptable transfers from two- to four-year colleges, and to California's low ranking among the states in baccalaureate degree production. These problems have been compounded by chronic underfunding of the community colleges relative to their counterparts in other states and to the four-year segments in California. Finally, a policy vacuum has been created over the past decade as the state abdicated its responsibility to plan effective strategies that would meet the widely forecast increased demand for higher education.

OVERCOMING BARRIERS TO IMPROVEMENT

Admittedly, these lists of adverse conditions and perennial weaknesses are daunting. But I believe that there are at least two factors that bode well for a concentrated effort to renew and strengthen California's historic commitment to educational opportunity for virtually all of its citizens:

1. **Public support for higher education.** Public opinion research has always shown strong public support for higher education and college opportunity, and substantial resistance to policies that are perceived as reducing opportunity. Media attention has focused heavily on issues relevant to the elite sector, such as admissions to the University of California. But if the magnitude of the current crisis for all sectors and the state itself can be brought to the public's attention, that public will, I am

confident, stand firmly behind leadership by the governor and Legislature to maintain and enhance higher education opportunity, if that leadership should emerge.

2. **The infrastructure of higher education.** To my knowledge, no nation or other state enjoys the equivalent of California's vast aggregation of campuses and facilities currently used for instruction, research, and student housing and services—one of the great legacies of the 1960 Master Plan. As difficult as it may be to marshal the educational sectors and segments to a common cause, the task is immensely more feasible than it would be without this enormous infrastructure.

Public support and extensive infrastructure are necessary but insufficient conditions for meeting California's needs for education and training beyond high school. The findings and recommendations of this report suggest that the Hewlett Foundation and other foundations could contribute significantly to the preservation and enhancement of college opportunity in California through the community colleges. Based on this report, the conversations that have informed it, and the many suggestions made to the National Center during the project, I recommend philanthropic initiatives to reach three critical objectives: (1) to increase public awareness of the issues facing community colleges; (2) to improve educational preparation and quality through collaboration among community colleges and between community colleges and high schools; and (3) to address the problems of regulatory reform and analytic capacity.

One: Increase Public Awareness

Advocacy. The ultimate responsibility for college opportunity resides with the State of California—specifically with the governor and Legislature. As noted above, public opinion research has always demonstrated strong public support for higher education and for college opportunity. However, the magnitude of the current crisis has received little public attention, and public support has not been mobilized. A strategic effort to inform the public of the need for action and to build coalitions is essential. The Campaign for College Opportunity, already supported by the Hewlett Foundation, appears to be a promising vehicle for public leadership.

Public opinion research. Periodic monitoring of public attitudes can provide strategic information for advocacy efforts as well as evaluation of their effectiveness in reaching the general public. Evidence of high and sustained public interest in higher education can be a powerful tool for reaching the media and key policy leaders. Public opinion played a critical role in reversing the rollbacks of higher education access in California during the recession of the early 1990s.

Television documentary. As part of a plan to increase public awareness, consideration should be given to producing a television documentary similar to the recent PBS documentary, *First to Worst*, which focused on the decline of California's public schools. A comparable community college effort could emphasize the colleges' critical role in educational opportunity, the consequences of a weak community college sector, and the unevenness of educational opportunity in California, while placing a human face on these issues.

Public symposium on the British Open University. The British Open University is the world's best example of distance education being used to extend access to higher education on a large scale. For more than 30 years this institution has successfully offered high-quality and cost-effective instruction. Although phenomenally successful in Britain and elsewhere, it failed in the United States for a number of reasons, the two most critical of which were its inadequate capitalization and its restriction of instruction (in the United States) to community college *graduates*.² The approach of the British Open University could nevertheless substantially widen educational opportunity for potential community college *students*. Its relevance should be examined at a symposium comprised of educational, governmental, civic, and business leaders. The symposium should be public and focus on the experience of the British Open University, the lessons that could apply to California, and whether and how such an institution could be incorporated within or outside the existing higher education segments. The major purpose of the symposium would be to "jump start" a conversation about alternative approaches to access, instruction, and degrees, approaches extending beyond existing delivery systems and capacities.

Two: Improve the Quality and Cost-Effectiveness of Instruction, and Stimulate Collaboration

Selective use of technology. Information technology on and off the campus can play a significant role in addressing challenges of access, quality, and cost. Community colleges should be encouraged and assisted in designing approaches to instruction that will achieve savings and enhance quality. High-quality course materials should be designed around cost-effective electronic technology. Adapted for use by multiple community colleges, these materials could be a major component of a strategy to increase capacity.

²See David L. Kirp, "The British are Coming—and Going," in *Shakespeare, Einstein, and the Bottom Line* (Cambridge: Harvard University Press, 2003).

Regional collaborative to articulate standards for college-level work and improve preparation. A regional pilot project should be initiated in a high-growth area of the state to address issues of college readiness. The project would bring school and community college leaders together to assure consistency and clarity of expectations for work at the community college level. It would examine postsecondary placement standards—as reflected in community college placement examinations that are used to determine whether students require remediation—and address their alignment with K–12 standards and assessments. (For example, the California State University uses the state's high school junior-year assessment to measure student readiness for college-level work, an approach that community colleges might consider.) This project would examine a core educational issue in a collaborative regional context and develop a strategy that might be a prototype for other regions of the state. The goal would be consistent, widely distributed information to schools, students and parents concerning the knowledge and skills needed for college-level work at community colleges. This, in turn, could reduce the need for high school graduates to receive remediation in college, since deficiencies in student preparation would be identified and addressed prior to college enrollment.

Three: Support Regulatory Reform and Independent Analytic Capacity

Regulatory reform. Although integral to California's higher education system, the community colleges have long been plagued by a legacy from their origins in the public schools: detailed state regulations that erroneously assume “cookie cutter” uniformity of the colleges. The California Community Colleges are one of the most highly regulated systems of higher education in the nation. Each community college is unique in its mission of responding to the needs of its particular region and community. Yet, as the postscript to this report points out, the myriad prescriptive statutes and regulations may impede the colleges' efforts to respond to financial stringency. Under current regulations, for example, each college must spend at least 50% of its budget on direct instruction; each must have 75% of instruction taught by full-time faculty; and each is shackled by the conditions of categorical funding—of state funds appropriated for specific purposes. The time has come to repeal or modify the most restrictive of these regulations, and an external review should be initiated to that end. For this task I suggest an external commission be established with considerable representation from business leaders—a commission that could identify regulatory impediments to efficiency, access and quality, and that could recommend appropriate action. This process should include identifying areas where current input-focused managerial and procedural state accountability rules might be replaced by substantive, outcome-based measures. Charter colleges and other experiments to increase managerial and instructional flexibility might be considered.

Information and analysis. Credible and timely information and analyses are necessary conditions for public awareness, advocacy, and policy change. Because effective advocacy will rely on data and analysis, both the analytic agency and the source of information should be independent and accessible to all parties of the policy debate. An independent entity will be much more credible than would either governmental or advocacy organizations. The information and analytic agenda should include at a minimum:

- updating the information in this report, perhaps as an annual report on the condition of the California Community Colleges, parallel to reports on the public schools that have been issued by Policy Analysis for California Education (PACE);
- modeling and evaluating alternative approaches to financing community colleges that integrate state and local support, tuition and fees, and financial aid; and
- describing and analyzing student characteristics, such as entering proficiency levels, educational goals, attendance patterns, and other characteristics relevant to greater understanding of the community colleges' multiple missions and diverse students.

The community colleges have long been the foundation for college opportunity in California—which in turn sustains and upholds the state's commitments to equality and equity. Today, even more so than in the past, opportunity in California must not only be cherished and valued, it must also be maintained and supported.

As always, the National Center welcomes the responses of readers.

Patrick M. Callan

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Chapter One Introduction and Overview

California is faced with serious issues regarding access to, and progress through, its system of higher education. The overarching problem is one of student success. Put simply, too few students are achieving the baccalaureate degree in California; the vaunted California Master Plan for Higher Education, the national model when it was created in the early 1960s, is no longer yielding the desired results. California ranks 36th of the 50 states in the ratio of baccalaureate degrees awarded compared to high school graduates six years earlier (see figure 1), and 46th in the number of baccalaureate degrees awarded per 100 undergraduates (see figure 2). In an environment in which California can no longer be assured of obtaining all the educated talent it needs by importing it from elsewhere, this level of performance poses a potentially serious problem for the state.

This problem is exacerbated by several factors related to the projected demand for higher education in California (from 2000 to 2010, called “Tidal Wave II”) and the state’s ability to respond to that demand. Among these factors are:

1. **The size of Tidal Wave II.** The demand for higher education is expected to grow by 714,000 students between now and 2010. This projected increase is greater than the entire higher education enrollment in all but four or five of the other states. To put the size of this anticipated increase in perspective, by 2010 California will need to accommodate a number of additional students roughly comparable to the total numbers of higher education students currently enrolled in the state of Illinois. It is expected that almost three-fourths of this growth will occur in California’s community colleges.
2. **Demographic characteristics of Tidal Wave II.** In addition to the sheer magnitude of the expected growth, the composition of California’s student population served by higher education is unique in the United States. More than half of the state’s college students are minorities and that percentage is increasing. Based on prior experience, the vast majority of these emerging populations who enroll in an institution of higher education will do so in one of the state’s community colleges. For most of these students, higher education opportunity is synonymous with access to community colleges.
3. **The unrecognized tidal wave.** In addition to a rapidly increasing number of high school graduates, California has a large number of working-age adults with less than a high school education. More than a sixth of the young adults (18- to 24-year-olds) in the state are in this category. The 980,000 individuals who are in this category represent a group much larger than the community college share of Tidal Wave II. Addressing the educational capital needs of the state requires an effective mechanism for reaching this group—education at less than a high school level is inadequate preparation for economic success and civic participation in the 21st century. The current mechanisms are not working. Fewer than 18,000 General

Too few students are achieving the baccalaureate degree in California.

Education Diplomas (GEDs) were awarded to California 18- to 24-year-olds in 2000. The 3.1% ratio of GED awards to those with less than a high school education (18- to 24-year-olds only) places California at 49th of the 50 states on this measure. If community colleges were assigned the responsibility of addressing this issue, the size of the tidal wave about to engulf these colleges would be twice that commonly being referenced.

4. **The state's financial situation.** California is facing this potentially substantial increase in demand at the same time that it is coping with its largest fiscal crisis in more than a decade. As this report is being written, the projected "hole" in the 2003–04 budget exceeds \$30 billion. In this environment, reductions—not increases—in allocations to higher education are almost inevitable. The probability that higher education will receive revenue increases proportional to increases in demand is slim at best.
5. **Short time frame.** Tidal Wave II will impact California before the capacity to respond with "business-as-usual" solutions can be created. The demand will become evident before the state has either the time or the resources to build enough new buildings or hire enough new faculty to accommodate all the new students. Therefore, California will need to look at more efficient uses of existing resources and more effective policies regarding student access if the state is to fulfill its decades-old promise to provide a high-quality higher education to all its residents who are prepared for college.

For a variety of reasons, the responsibility for addressing this impending problem will fall most heavily on the California Community Colleges (CCC). By design, these colleges are the primary point of access to higher education in the state. Longstanding policy ensures that, at a minimum, two-thirds of the first-time students in public sector institutions begin their postsecondary careers in community colleges. In addition, they are the most geographically accessible of the higher education institutions. With 108 campuses, the community colleges are within driving distance for most residents of the state. Finally, the community colleges are the most affordable institutions in California—from the perspective of both the state and the individual students. Because state support per student at the colleges is a fraction of that at either the University of California (UC) or the California State University (CSU) systems, it is in the state's economic interest to enroll a high proportion of students in the community colleges. Because so many of the members of Tidal Wave II will be from families of limited means, they will naturally be attracted to the public two-year sector with its extraordinarily low fee structure. Whether by state policy or individual choice, the community colleges will be confronted with the largest portion of the increased demand for higher education in California.

Unless community colleges respond effectively to this pressing set of demands, thousands of California residents will be denied access to the point of entry into higher education in the state. If access to community colleges is denied, access to baccalaureate-level education is likewise denied, since state policy restricts direct access to public

baccalaureate institutions to the most academically able one-third of the state's high school graduates. And, in the emerging economy, denial of access to baccalaureate-level education will mean, for many, denial of access to an American middle-class standard of living.

Against this backdrop, The William and Flora Hewlett Foundation asked the National Center for Public Policy and Higher Education to undertake a project designed to:

- Compile information that would provide policymakers with a better understanding of the nature and extent of the emerging access and transfer issues in California.
- Gather information through interviews and other means that would establish the context for developing a response to these issues. What are the factors and existing conditions that must be considered in designing a response?
- Propose a set of criteria for initiatives that might be undertaken by the Foundation to aid in addressing the issues identified.

The National Center for Public Policy and Higher Education requested the assistance of Dennis Jones and Aims McGuinness, Jr., of the National Center for Higher Education Management Systems (NCHEMS) in performing the analytic work, and of Gerald Hayward, former director of, and Allene Timar of Policy Analysis for California Education (PACE) in conducting the interviews and developing the contextual information. All three organizations collaborated in developing the recommendations.

A special advisory committee was created to provide feedback to project team members (see sidebar).

In conducting this analysis, project team members undertook a variety of activities. First, the triggering mechanism for the study—the impending Tidal Wave II and the necessary role of community colleges in responding to this increased demand—were explored in detail. This analysis reveals that the projected increases in enrollment:

- Will be concentrated in relatively few counties in southern California and the Central Valley;
- Will be comprised largely of Latino students;
- Will demand expansion in the rates and numbers of students transferring from the community colleges to

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four-year colleges and universities if California is to sustain a citizenry educated to the levels needed for the state to maintain the economy and quality of life which has been achieved in the past;

- Ignore a critical problem in California, the nearly 1,000,000 18- to 24-year-olds who have not completed high school and whose educational needs are not being addressed by any part of the state's educational system; and
- Are occurring at the same time that the state is faced with a financial crisis that precludes allocation of resources commensurate with the increase in demand.

More detailed information about the nature of the issues to be faced are presented in Chapter Two of this report.

In addition, members of the project team conducted site visits and interviews throughout California with state and institutional leaders for community colleges, including students, faculty, administrators, and trustees, and their association leaders in Sacramento. In the process, we found many promising practices and innovative approaches designed to enhance student success and transfer. In spite of some exemplary practices, however, the findings of these visits paint a gloomy picture regarding the capacity of the educational system in California—from schools to two- and four-year colleges and universities—to effectively cope with the demands that will confront them. The problems include:

- Lack of academic preparation of many students entering the community colleges. The result is costly “rework” that is required to bring student skills up to the college level. This rework reduces the output of the colleges, thereby reducing their capacity.
- Weak connections between K–12 schools and community colleges, with few examples of relationships that help to ensure that students leave high school fully prepared for college-level work.
- Highly variable commitment and capacity within community colleges, especially as this relates to supporting the transfer function as an institutional priority. The importance of strong institutional leadership cannot be overstated.
- Reliance on a large number of small, specialized programmatic initiatives with the attendant problems of coordination and integration. While most of these programs are making a positive contribution, they are meeting the needs of only a small fraction of the target populations and doing that at a very high administrative cost.
- Highly variable collaborations between community colleges and four-year colleges and universities. In some instances the relationships are very strong and the transfer function is generally working well. In other instances, it is working poorly at best.
- Limited capacity for developing and utilizing information to assess and improve performance.

Perhaps as important as these problems is the policy environment within which they are being addressed. The levels of funding and the mechanisms by which funds are distributed—including base funding and myriad categorical programs—are inadequate to the task. The resource problems are exacerbated by the absence of policy leadership that would serve to ensure a continued state-level focus on the problems identified and promote alignment of responses in ways that would have some chance of making a positive difference.

More details on the findings and observations about the barriers to be overcome can be found in Chapter Three of this report.

Several criteria for approaches to addressing the issues identified emerged from our consideration of the quantitative and qualitative data compiled in the course of the project. First and foremost, the issue of access to, and successful completion of, a high-quality undergraduate education must be reestablished as a very central feature of California economic and social policy. Solutions must be:

- Regional in nature;
- Intersegmental;
- Cross-functional, involving active participation of faculty, support staff, and administrators; and
- Sought within a policy environment that is substantially overhauled and in which leadership decisionmaking, finance and resource allocation, and accountability mechanisms are aligned in pursuit of the overall objective.

The actions necessary to devise and implement solutions that meet these criteria will require leadership and managerial approaches quite different from the norm. The capacity to function effectively within this context must be systematically developed at the state, regional, and institutional levels.

Application of these criteria lead us to a set of recommendations concerning steps that should be taken to address the serious problems identified:

1. The governor and legislative leadership assume the responsibility for articulating the problem and establishing expectations for performance. If elected leadership refuse this assignment, other approaches must be found or created.
2. Create mechanisms for regional leadership in order to:
 - Bring focus to the specific problems most in need of attention within the region (for instance, improved K–12 performance, improved alignment between K–12 schools and higher education, and improved articulation between community colleges and four-year institutions);
 - Allocate resources to support collaborative action; and
 - Monitor performance and improvement.
3. Review state policies—primarily those regarding funding and resource allocation, but others as well—to create the foundation for policy changes that promote rather

than impede improved regional performance (that is, serving more students more effectively).

4. Enhance analytic capacity at the state level.
5. Develop implementation capacity at the regional and institutional levels. Included under this heading are:
 - Leadership development;
 - Planning, evaluation, and related analytic capacity;
 - New approaches to academic content delivery through use of technology;
 - Alignment of approaches to assessment of student learning; and
 - New approaches to delivery of student services.

Additional details about both the criteria and the recommendations are presented in Chapter Four of this report.

Much of what is recommended will require both funding and policy leadership from the State of California. However, given the absence of leadership on these topics to date and the fiscal problems facing the state, it is unlikely that this agenda will be addressed without a “jump-start” from external groups such as the Hewlett Foundation and other partners in the philanthropic and nonprofit sectors. In light of this reality, we offer these suggestions:

1. **Convene a community college summit similar to the recent meeting convened by the Hewlett Foundation that focused primarily on K–12 issues.** Invitees should include representatives of community colleges, public and private universities, public schools, other foundations (especially those such as Ford and Gates that have related community college initiatives), community-based groups, business leadership groups (e.g., the chamber of commerce and the business roundtable), and selected researchers and policy analysts. The purposes of the summit would be:
 - To develop a common understanding of the nature and scope of the impending increased need and demand for postsecondary education in California.
 - To underscore the critical role community colleges must play in providing higher education access, the importance of stemming the “leakage” at various stages in the education pipeline (that is, participation, retention, and transfer), and the impact of budget cuts on the goals of the state for access to college.
 - To build consensus around an action agenda of short- and long-term steps to be undertaken by meeting participants. A specific outcome would be the identification of projects that could be funded by philanthropic organizations.
 - To create productive networks among individuals and organizations

Much of what is recommended will require both funding and policy leadership from the State of California.

who share a common agenda and have promising initiatives related to this agenda.

2. **Commence public awareness and coalition-building campaigns.** As we note in Chapter Four of this report, this agenda needs leadership at the highest levels in California. This leadership is unlikely to emerge from government in a timely fashion, and it must come from outside the education establishment. One possibility is for philanthropic groups to support a business and civic leadership group that can fulfill this role. As one component of this, the Hewlett Foundation could lend support to the effort already begun by David Wolf and Steve Weiner through their “Keeping the Promise” activity. Their focus is on the plight of community colleges rather than Tidal Wave II issues, but many of their findings are consistent with ours. The purposes of this activity should be:

- To create general public awareness of the nature and size of the Tidal Wave and the key role of community colleges in responding to that impending demand; and
- To broaden the base of support for the agenda and for community colleges by including a coalition of influential leaders from business, labor, and other groups.

3. **Finance a policy audit.** The ability to leverage change and responsiveness, especially among the community colleges with their decentralized governance structure, is heavily dependent on having financing and resource allocation mechanisms aligned with identified needs and objectives. The current mechanisms serve to provide barriers to progress rather than promoting it. An audit of policies and procedures is needed that:

- Describes the current systems and points out the complexities and the accumulation of categorical funding pools that have become so numerous and managerially expensive that they are dysfunctional;
- Compares the incentives embedded in the mechanisms with those necessary for success, and points out the inconsistencies; and
- Recommends an alternative approach.

This is an activity that *must* be done by an organization that is knowledgeable about the topic, has impeccable credentials, and is outside both governmental and educational structures in California. The study will not solve the problem, but it is an essential first step.

4. **Assist in building research and evaluation capacity at the state level** (in the statewide chancellor’s office of the community colleges). Many of the requisite data are available, but there is no capacity to turn these data into the kinds of information that would be helpful in addressing the issues identified in this report. UC Davis has available analysts who, with limited direction, could provide

It is unlikely that this agenda will be addressed without a “jump-start” from external groups.

substantial support to the chancellor's office. For a modest sum, the Hewlett Foundation could provide the initial impetus for such an arrangement.

5. **Fund a demonstration activity in one region.** This is an avenue through which approaches to a regional solution can be both illustrated and better developed, and the initial elements of capacity building can be put in place. We envision an activity in which:

- A regional entity focused on the topic at hand is selected on the basis of an RFP (request-for-proposal) process.
- Leadership development activities are provided at both the regional and campus levels. This component would involve direct assistance to the selected entity but be done in such a way that materials and approaches can be used in other regions at a later date. The Community College Leadership Development Initiative located at Claremont Graduate University, in collaboration with CSU Sacramento, San Diego State University, and the University of California, is one possibility here.
- Development of capacity for planning and evaluation is provided at both regional and campus levels. Here we envision direct assistance in matters of information compilation and analysis, again with the idea that the assistance is provided in such a way that it can be expanded easily to other regions of the state.
- Assistance is provided to develop one course—a basic math course would be a likely candidate—that could be taught using technology in a much more cost-effective way. This course development could be the focal point for faculty conversations about both content coverage and expectations regarding proficiency levels.

If the full demonstration activity cannot move forward in the short run, consideration should be given to funding the development of leadership and research and evaluation modules that can be incorporated into the materials and programs of the Leadership Development Initiative.

6. **Develop an approach to certifying competence.** We believe it is important to have a common method of assessing competence and proficiency at various levels of the education process. We also believe it is important to do so in a way that does not eliminate options.

For various reasons, we believe that the applicability of WorkKeys, created by ACT, should be investigated in this context. This instrument measures a variety of skills—communication, quantitative literacy, etc.—at different levels and is structured to align with profiles of skills required for more than 2,000 different occupations. The instrument has several advantages:

- It is already developed.

- It provides a device for certifying *levels* of competence in discrete areas determined to be important by employers.
- It provides a “passport” that can be updated when higher-level skills are acquired and can be used by the individual in the employment process. It can also be used as a tool for guiding individuals to positions for which they are qualified.

The additional developmental work revolves around two topics:

- a. Determining the extent to which the job profiling process used in WorkKeys applies in an academic context. Do the assessments on quantitative literacy and communication skills translate into placement information that can be used by colleges? Do the assessments of work ethic and some of the softer skills have an academic counterpart, such as assessing study skills?
- b. Designing learning experiences specifically intended to improve performance on WorkKeys measures. ACT has developed instructor guides in this area, but not specific courseware. (It could be that the development of a basic course described under number 5 above would provide an opportunity for this kind of exploration.)

The development work in both of these areas would require considerable interaction with faculty leaders. It would also involve:

- Work with the business roundtable, the chambers of commerce, and other groups to determine whether demonstration of competence has currency in the employment market; and
- A policy audit to determine how such a design could work within the existing institutional structures in California (for instance, community colleges and one-stop centers).

This more extensive effort would necessarily be a long-term initiative. In the short run, regional attempts should be made to align high school completion assessments and college placement exams. This could be an important first step in decreasing the amount of “rework” and easing school-to-college transitions in ways that lead to greater student success.

Chapter Two

The Nature of the Problem

The Master Plan is not functioning as intended.

The 1961 California Master Plan for Higher Education established as a matter of state policy that only the academically best prepared one-third of the high school graduates would enter directly into the state's public four-year universities. The path to a baccalaureate degree for all other students required them to begin their collegiate studies at community colleges and transfer to a university after achieving a satisfactory record at the lower-division level. This policy is effectively still in place. Many students have followed this prescribed path to achievement of a baccalaureate degree. As was noted in Chapter One, however, this policy has resulted in California's being well behind the national average in baccalaureate degree attainment (see figure 1). Further, there is evidence that California is losing, not gaining, ground. In 1997, California ranked 33rd in the ratio of baccalaureate degrees awarded compared to high school graduates six years earlier; by 2000, the state ranked 36th. In 1997, California was 4.3 percentage points behind the national average on this measure; by 2000, the gap had grown to 5.9 percentage points. These facts, coupled with the data shown in figure 2, suggest that the Master Plan is not functioning as intended. For whatever reasons, too few students who enroll in the state's higher education system make it to successful completion of the baccalaureate degree.

As noted in Chapter One, steps that might be taken to address this fundamental problem are confounded by a variety of related issues, including the projected rapid growth in high school graduates, a need to provide educational services for the large number of young adults who have not completed high school, very uneven transfer rates across the colleges, and severe financial problems affecting institutions and the state alike. In this chapter, we provide key information about each of these factors, information that will shape the characteristics of responses required to meet the needs of the State of California.

A. TIDAL WAVE II

The Demographic Research Unit of the California Department of Finance has projected a substantial increase in the number of high school graduates in the state, more than 75,000, in the opening decade of the 21st century (see figure 3). The same agency has projected an increase in total community college enrollments of more than 430,000 over this same period, an increase of more than 27% (see figure 4).

The absolute size of the expected growth represents a substantial challenge for the State of California and its higher education system, particularly the community colleges. The size of the challenge is exacerbated by the nature of the growth. Two factors in particular are noteworthy. First, the projected growth is by no means evenly distributed across the state:

- The most significant growth in high school graduates is concentrated in relatively few counties (see figure 5). Almost 75% of the growth is found in only five of the state's 58 counties.

**Tidal Wave II
is a state
problem, but
not a
statewide
problem.**

- The projected growth rates of the community college districts vary significantly—from nearly 65% in one district to only 6.5% in another (see figure 6). The latter rate of growth could be managed quite easily over eight or nine years. The much more rapid growth likely for some districts would be difficult to accommodate, even in good economic times.
- In absolute numbers, the greatest enrollment increases are projected to be in districts whose rates of growth are more in the middle of the pack (see figure 7). Even so, one-third of the growth will occur in one-ninth of the districts and one-half of the growth is likely to occur in only 15 of the 72 districts.
- Enrollments in community colleges could be much more concentrated if high school dropout rates were improved in some of the more populous counties, especially Los Angeles, where more than one-third of the total growth in the 18- to 19-year-old population is expected (see figure 8). Three-quarters of the age cohort increase is likely to occur in only eight counties.

These data suggest that Tidal Wave II is a state problem, but not a statewide problem.

The second confounding factor is the substantial demographic shift occurring in California, the primary phenomenon being the substantial increase in the numbers (and proportions) of Latinos among the young people of the state. The size of this shift is represented by the following data:

- Latinos will become the single largest group among high school graduates before the turn of the decade (see figure 9), comprising about 44% of high school graduates by 2011. This is an increase of 11 percentage points (from 33%) from the beginning of the decade.
- Nearly three-fourths of the growth in the Latino 18- to 19-year-old age cohort is concentrated in only five counties, with Los Angeles County accounting for 43% (see figure 10). The next four combined account for 30%.

The impact on community colleges would be much greater—and much more concentrated in a handful of counties—if Latino students attended college at the same rate as their Anglo counterparts.

- In 2010, Latinos are projected to represent about 42% of total high school graduates, but only 30% of community college enrollments (see figure 11). Latinos will represent almost 80% of the increase in high school graduates, but only 40% of the increase in community college enrollments (see figure 12).
- Anglos are projected to represent 35% of the high school class in 2010, but 44% of the community college enrollments. Anglo community college enrollments are expected to increase 30%, but their proportion of high school graduates will remain virtually constant.

These data combine to indicate that:

- The impact of Tidal Wave II will be felt very unevenly across the state, with the greatest increases in numbers of students occurring in but a handful of districts.
- The projected increases in high school students will be almost totally minority and 80% Latino.
- If participation rates among Latinos improve, the impact on community colleges will be larger than is already being projected, and even more concentrated in a limited number of counties: Los Angeles, Orange, San Diego, San Bernardino, and Riverside.

B. THE HIDDEN TIDAL WAVE

Almost a million Californians, ages 18 to 24, do not have a high school diploma (almost 30% of the age cohort).

- California ranks 45th among the 50 states in the proportion of 18- to 24-year-olds who have attained a high school diploma or equivalent (see figure 13). Nearly 30% of the young adults in California have *not* attained this educational milestone.
- California is 49th of the 50 states in redressing this problem through use of the GED (see figure 14). With only 17,000 GEDs being awarded each year—and the annual number of dropouts being much higher than this—the number of undereducated young adults is growing annually by leaps and bounds.
- Young adults without a high school diploma are heavily concentrated in a very few counties (see figure 15). More than half live in Los Angeles, Orange, San Diego, and San Bernardino counties; more than one-third live in Los Angeles County.

These findings are germane to a discussion about the increasing demand facing community colleges for at least two reasons:

1. This is a very large group of individuals, some portion of which could conceivably complete high school and seek admission to a community college.
2. More importantly, these individuals represent a group to which California must eventually pay policy attention. These individuals are not prepared for the workforce of the 21st century and they will likely demand far more from society than they return to it. If the problem is to be addressed, community colleges will have to play a significant role. This issue creates another agenda that will compete with Tidal Wave II for the community colleges' attention and resources.

It should also be noted that the impact, once again, will be on relatively few districts—the same districts affected by increasing numbers of high school graduates.

C. TRANSFER RATES

If the number of baccalaureate degree recipients is to be substantially increased, the proportion of students entering community colleges and subsequently transferring to four-year institutions will necessarily have to be increased.

- During the last eight years, the annual number of transfers to UC and CSU has remained relatively constant in the 55,000 to 60,000 range (see figure 16).
- The transfer rates of the various colleges differ dramatically—from a low of about 8% to a high of 50% (see figure 17).
- The transfer rates for different subpopulations differ significantly, with ethnicity and age at entry being key factors (see figure 18). Research by the chancellor's office has identified the following factors as most important in determining transfer rates:
 - ✓ Quality of academic preparation in high school;
 - ✓ Intensity of effort (full-time versus part-time);
 - ✓ Curriculum choices available;
 - ✓ Age of the students at time of college entry; and
 - ✓ Proximity of a (CSU) campus to which students can transfer.
- Consistent with the last point, the county in which community colleges are located has a significant impact on transfer rates (see figure 19). Those counties projected to have the largest increases in high school graduates are well down the list in most cases. The largest of them all, Los Angeles County, is very much in the middle of the pack.

D. THE FINANCIAL PICTURE

This projected growth is hitting the community college system at the same time that resources to respond to the need are declining. The state is caught in the throes of a budget crisis of unprecedented magnitude. The most recent reports describe the state budget deficit at \$26 to \$35 billion (\$9 billion in the few months remaining in the current fiscal year—the remainder for 2003–04 fiscal year) on an annual budget base of about \$80 billion. This deficit is by far the largest in the country in both absolute terms and as a proportion of the total budget.

- Even assuming that California started the 2003 fiscal year with no deficits, the eight-year projection indicates that revenues from the current tax structure would not fund a current services budget (see figure 20). And even with all the projected growth in higher education, costs of other state services are escalating more rapidly than costs of higher education (see figure 21). This means that there will be substantial competition for what resources are available.

Growth is hitting the community college system at the same time that resources to respond to the need are declining.

- Even before the economy turned completely sour, funding was not keeping up with enrollments; there was a rapidly increasing number of unfunded enrollments in some districts. By far the greatest number is in the Los Angeles Community College District (see figure 22).
- Governor Davis proposed community college current funding levels be slashed by \$288 million in the current year, and \$530 million in the next fiscal year. The cumulative reduction would leave the community colleges with 17% less general fund money than they had four years ago.
- In addition, Governor Davis proposed more than doubling student fees from \$11 to \$24 per unit (still the lowest in the nation).
- The combination of increased fees and reduction in overall funding is unprecedented. In the two periods in California history in which the state faced a financial crisis, from 1981 to 1984 and from 1991 to 1995, student enrollment dropped by 296,000 students and 179,000 students respectively. In neither of those situations were the fee increases as great nor were the reductions in state funding nearly so dramatic. The chancellor's office estimated a reduction in enrollment of 146,000 in fall 2003.

Chapter Three

The Context for Solutions: Observations and Implications

On our site visits we witnessed many promising practices and substantial creative effort. Below, we lay out what we consider to be the essential features of a comprehensive strategy. No institution we visited had all the components in place; some had only a few. But we found many examples of important initiatives. We also make some general observations that summarize key overall conclusions. We then list more specific findings by relating them to various steps along the path to transfer. We organize our findings along this continuum:

- **K–12 preparation.** Students' early preparation is crucial to their later success in attending college and successfully completing a degree program. In this chapter, we highlight three areas of concern: poor academic preparation, inadequate student services, and lack of attention to the needs of English learners.
- **Connections between high schools and community colleges.** The link between what goes on in high school and what is expected of college students is a key component of a successful transfer experience. We found this link to be woefully underdeveloped in a number of cases.
- **Community college preparation.** The next step along the transfer continuum is the preparation for upper-division coursework in four-year institutions. We witnessed a large number of innovative practices and positive efforts in the colleges, but many of the better efforts were too small and expensive to impact a problem of this magnitude. We also attempted to categorize characteristics of the most promising programs.
- **Connections between community colleges and four-year institutions.** Here we catalog some of the efforts at reducing or eliminating barriers to successful transfer between community colleges and their four-year counterparts.

Our experience and our observations of the colleges we visited tell us that the combination of leadership, emphasis on a strong academic culture, and the availability of a wide array of student support services helps students stay in college and succeed. The colleges that had these attributes were best able to respond to the transfer needs of their students. We are equally convinced that not enough attention has been paid to the importance of the linkages between the various steps along the path to a successful collegiate experience.

Several existing considerations frame our more specific observations about successful and unsuccessful transfer programs:

- **Givens** are those parts of the broader context that are unlikely to change, even if change would be desirable. For example, we assume there will be no significant alteration of the governance structure for the three public segments of higher education and that their respective missions will remain relatively constant.

- **Important public policy issues** are those contextual policy issues that have a profound impact on the transfer process. Some of these issues have proven so impervious to change that one might more appropriately place them among the “givens.” But their significance merits serious discussion if meaningful, sustainable change is to occur. Community college finance is an example of an issue that permeates the discussion of the transfer function but has proven to be difficult to alter.
- **Statewide leadership** includes those activities undertaken by the governor, the Legislature, and each of the segments to foster transfer. Despite a flurry of statewide initiatives and unprecedented collaborative efforts, the number of students actually transferring has remained relatively constant and, as a percentage of overall enrollment, has actually declined. The voluntary actions of the segments, including independent colleges and universities, have been substantial, but the segments can only do so much. The data have clearly demonstrated to policymakers the scope of the problem; the state has simply not responded adequately. The current budget crisis exacerbates an already serious situation.

A. GIVENS

1. Governance Structures

We expect the three segments of public higher education to continue to exist more or less as they do now. Governance in California higher education is among the most stable of public policies, and despite a spate of reports and proposed legislation—calling for everything from abolishing local community college boards of trustees to having a single governing board for all of higher education—little has been done to alter the status quo. The most recent Master Plan Review produced a report laced with dramatic changes for K–12 governance but left higher education governance largely unchanged. Certainly no radical changes are likely. In addition, California’s relatively weak coordinating body, the California Postsecondary Education Commission (CPEC), will remain relatively unchanged in the near term. In sum, California will continue with a system designed for governance within each segment, but with little attention to issues that transcend individual segments, such as transfer issues. The segments do discuss issues and act in intersegmental ways,¹ but there are no governance structures with appropriate power to deliver rewards and sanctions for activities that span segmental lines on regional problems.

¹The Education Roundtable, comprised of the heads of private or independent colleges, the three public segments of higher education, the superintendent of public instruction, and the executive director of CPEC, performs and promulgates many intersegmental activities. This voluntary effort has generated many positive outcomes. The roundtable has been effective in implementing consensual policies; it has been less successful, however, in addressing critical issues where consensus does not exist among the participants.

2. Local Control

The California Community Colleges have a strong legacy of local control, featuring locally elected boards, much like their K–12 counterparts. The Legislature has shown no willingness to abolish local boards of trustees, despite calls for their elimination. If, as we suggest, many of the problems related to the transfer function are regional and fail to lend themselves to “one size fits all” approaches, the regional nature of community college governing boards may prove to be a considerable asset.

3. Shared Governance and Collective Bargaining

The California Community Colleges feature a complicated local-campus and district-governance arrangement that features a high degree of “shared governance” whereby faculty and other staff are to be fully engaged in important decisions regarding the educational enterprise. Criticism of the arrangement usually comes in two forms, depending on the critic’s point of view: the administration is not collaborative enough, or the system is too cumbersome. Similar arguments are heard about the state-mandated collective bargaining statutes, which require good-faith negotiations between the local unions and representatives of the local board of trustees. Shared governance also has strong policy implications for the chancellor and the Board of Governors. Under the provisions of shared governance, the chancellor is required to engage in a “consultation” process that involves the major constituency groups within the community college system. Critics see this process as cumbersome and constrictive on the chancellor, while proponents consider it essential to the system’s functionality. Regardless, we do not foresee substantial change to the collective bargaining statute, shared governance system, or the consultation process.

4. Independent Colleges and Universities

The role of independent colleges and universities has grown significantly and will continue to grow in California. In the 1990s, transfers from member schools of the Association of Independent California Colleges and Universities (AICCU) grew by 23%. By the end of the decade, the number of transfer students enrolled in AICCU schools nearly equaled the number of those who transferred to the University of California. Although this sector’s important role in the transfer function has been overlooked, this is less likely to be the case in the future, especially since the chancellor’s office has adopted a new methodology for transfer rates that now includes data from independent colleges and universities.

5. K–12 Accountability and Statewide Testing Programs

The State of California and the federal government will continue to hold schools and school districts accountable for test-measured student performance. The Academic Performance Index is the index California uses to assess the annual progress of schools in meeting their

targets. Each year, tests will more accurately reflect the state's academic standards, but additional outcome measures will not be added for several years. The high school exit exam proposed for implementation for the class of 2004 will continue to be administered, but its actual implementation as a requirement for graduation will be delayed for two to three years. Once it does become a requirement for graduation, there will be an immediate and negative impact on the high school graduation rate. In addition, the federal government's No Child Left Behind legislation will reinforce the importance of student achievement on tests.

B. IMPORTANT PUBLIC POLICY ISSUES

1. The Base Funding Mechanism

The most serious contextual public policy issue affecting California's Community Colleges is the finance mechanism, which impacts not only transfer but every other mission of the colleges. First, there is the issue of adequacy. Community colleges are easily the lowest-funded of California's education institutions. Funding for community colleges per full-time equivalent (FTE) student is well below the national average. This creates a financial disincentive for colleges to increase transfer programs, since the relatively high cost of these programs exceeds the additional revenue they generate.

2. Proposition 13

Proposition 13 effectively prohibits local college districts from taxing their local constituents for additional resources. As a result, a system founded on the notion of strong local control allows no ability to generate locally derived resources.

3. Enrollment Cap

California pays for no FTE students above the enrollment cap, which is negotiated annually through the state's budget process and has historically been based on growth in California's adult population. During the current budget crisis, the cap on growth was lowered midyear. Within the community college system, the Board of Governors has adopted policies that determine local college shares of the state growth amount. The chancellor's office adjusts a district's allocation to provide extra weight for various factors. For example, because 17- to 24-year-old students are those most likely to transfer, the formula gives extra weight for colleges experiencing above-average growth in that age cohort. As well-intentioned as the adjustments are, they cannot make up for the delimiting effect of the overall cap. Another problem with the cap is that the prior year serves as the base for the subsequent year. The base can drop precipitously, without limit, but can only increase incrementally up to the allowable cap. If a district has a sharp drop in enrollment in any one year, for whatever reason, it may never recover. The enrollment cap severely hampers the ability of a college to

respond to the demand for more transfer programs and courses created by the increasing number of high school graduates and the college's own outreach efforts.

4. Multiple Categorical Problems

The community colleges now have dozens of categorical programs dealing with transfer. These initiatives all started as good ideas that deserved state support. But as they grew incrementally, they layered upon one another, resulting in lots of small, uncoordinated, often redundant programs. This has led to what Michael Kirst of Stanford University has called a hardening of the categoricals, in which each categorical program has advocates who protect the sanctity of their program, sometimes at the expense of better coordinated, more broadly inclusive efforts across the campus. Programs like the Puente Project, MESA, and scores of similar programs on campuses we visited were apparently very successful, but each impacted few students and were comparatively expensive. Scaling up such programs to produce a substantial increase in the number of transfer students is an unlikely proposition.

5. The Hidden Tidal Wave

In addition to the tidal wave of additional students graduating from high school, there will be an even larger cohort of non-high school graduates in need of further education. These students, who represent some 30% of their cohort, are, like their high school graduate counterparts, primarily located in a very few counties and are largely Hispanic. Services for this segment of the population will greatly increase pressure on the community colleges for enrollment slots.

6. Cumulative Impact

The combination of inadequate levels of funding and support for insufficient numbers of FTE students has resulted in a situation in which colleges are forced to compromise both quality and access. Colleges, largely because of limitations in funding per FTE student, have hired staggering numbers of part-time faculty. While many part-time faculty members are of very high quality, and while it may be preferable to employ part-timers for some classes or programs, overreliance on part-timers—who lack the time to be accessible to students or to participate in collegial governance and curriculum development—may negatively impact the overall quality of the institution. The cap has also led to large numbers of “unfunded” FTE students—those who are above a district's allowable cap limit but are permitted to enroll. In such cases, the district must either turn the student away and limit access or allow the student to enroll with the knowledge that there will be no state revenue to support that student. The addition of unfunded FTE students actually lowers the average revenue generated per student. Instead of closing the gap with other segments and with community colleges in other states, the real gap grows.

In sum, the State of California cannot have it both ways. The current mechanisms simply do not provide enough financial support to encourage the promotion of more transfer courses, and the current cap mechanism fails to provide support for the large increase in the number of high school graduates.

C. STATEWIDE LEADERSHIP

In 1994, the California Postsecondary Education Commission's report on enrollment projections alerted state policymakers that the state was facing a new tidal wave of students in the next decade and sounded the alarm for appropriate responses from the governor, the Legislature, and the segments. A subsequent report by a research panel appointed by the California Higher Education Policy Center verified CPEC's numbers and echoed the call for swift action by the state. The magnitude of the situation called for a solution much broader than intersegmental agreements; it required real leadership from the governor and the Legislature, which unfortunately was absent.

The last few years have seen a too-little, too-late flurry of activity surrounding the transfer function by each of the segments of higher education. California still lacks the groundwork that should have been laid earlier. Now that Tidal Wave II is upon us, the capacity to respond adequately is severely constrained by the budget situation. Tens of thousands of young people have had their opportunity to pursue higher education deferred or defeated. While we applaud the actions of the state described below, we regret that a more comprehensive effort was not begun earlier.

The state did not respond in a timely fashion for several reasons. First, each of the segments had its own challenges to overcome. The first half of the 1990s was dominated by budget shortfalls, and total higher education enrollment dropped precipitously. Merely recouping the lost FTE student enrollment levels was a challenge. During this period, UC focused on the battle over affirmative action. In the aftermath, the university materially increased its outreach efforts, but almost entirely related to high schools; it invested very little attention or money in enhancing the community college transfer program. CSU, battling through the budget crisis, placed many of its resources behind the worthy endeavor of improving teacher preparation. The community colleges were in survival mode—trying to come back from a 179,000-student enrollment decline from fall 1991 to fall 1995, a period in which funding per FTE student declined in constant dollars. California's economy righted itself in the latter half of the decade, which permitted the segments to belatedly address problems the state had neglected, including Tidal Wave II.

Another difficulty can be directly attributed to the combination of the governance, funding, and incentive structures. The governance system has inadequate mechanisms to link state priorities with local initiatives. Transfer is a good example of how that works, but the condition is pervasive. An improved transfer function is the only way California can deal effectively with Tidal Wave II. However, transfer is often a lower priority for individual community colleges. The community college governance system has been designed to allow colleges, within financial constraints, to respond well to local needs, but there are inadequate

The last few years have seen a too-little, too-late flurry of activity surrounding the transfer function.

incentives or consequences to encourage schools to work toward statewide goals. The statewide Board of Governors of the community colleges and local boards of trustees have an informal arrangement in attempting to bridge the state-local gap, but it does not bind any local district board or college.

In an attempt to rectify this, the governor and the community college system have entered into a series of agreements in which the colleges, as a system, are assigned specific collective goals—and given additional state dollars to apply toward those goals—through the Partnership for Excellence Fund (PFE). One such goal is increased transfers. In fact, in virtually every college we visited, PFE was cited as the funding source for new transfer-enhancing initiatives. The goals are specific and related to student outcomes. Districts are given a great amount of flexibility in allocating funds to meet the goals, but if the goals are not reached, the funds will be withdrawn. It remains to be seen whether the system accountability mechanism is powerful enough to drive campus behavior. Regardless, the current budget crisis will materially reduce and may very well eliminate funding for this program.

Of course, transfer is not the purview of only one segment—it requires receptive four-year institutions. Both UC and CSU, at the system and individual campus levels, have entered into a number of initiatives designed to promote transfer. The chancellor of the community colleges has entered into memoranda of understanding with each of the heads of the two public university systems and the president of AICCU, the association that represents the independent colleges and universities. These agreements set forth ambitious goals for increasing the number of transfers. These agreements, although a welcome addition to efforts to improve the transfer function, still fall far short of meeting the demand created by Tidal Wave II.

There were also a number of promising regional initiatives spawned during this period, many of which grew out of UC and CSU efforts to expand access. Both four-year segments concentrated on attracting high school students to their campuses, but a few institutions focused on the community college and its potential transfer student pool. These efforts, however loose or voluntary, recognized the regional nature of the problem—that each segment in each area is different, and that a uniform, statewide approach is probably doomed to failure.

Regional approaches are the most promising we witnessed, but regional collaboration is not a simple matter. It requires an extraordinarily high degree of cooperation among the many layers affecting the transfer function: high schools, community colleges, CSU, UC, and the independent colleges and universities. Current funding and governance mechanisms do not provide incentives for collaboration. Colleges often compete with one another for the same students. Outreach efforts by the various segments overlap. Effective regional collaborations are labor-intensive, expensive operations, especially if they involve—as many of the most effective ones do—the chief operating officers of the various participating agencies. Finally, the effectiveness of regional collaborations is limited by the individual institution's perceptions of its best interests. In a conflict between regional or state interests and those of the institution, the current system overwhelmingly rewards

Regional approaches are the most promising we witnessed.

institutional priorities. Presidents do not tend to lose their jobs because they are ineffective regional collaborators.

D. GENERAL OBSERVATIONS

Our visits were illuminating. We visited a diverse sample of colleges—urban, rural, suburban, northern, and southern—and met with dozens of administrators, faculty, support staff, and students. We visited colleges with a strong transfer history and those for which transfer was an afterthought. We also found colleges that had developed a fairly recent interest in improving the transfer function. We were struck by the overall level of activity, but also by the fragmentation of that activity.

1. Highly Variable Commitment and Capacity

Colleges included in the study varied widely in their commitment and capacity to support transfer as a priority. Virtually all community colleges have some activities to promote transfer on their campuses. For example, all colleges have transfer centers that serve as a contact point for students to gather information about four-year college and university admission, to receive counseling and referral for services related to transfer, and to receive educational planning services. However, transfer centers are not uniformly successful. Few transfer centers are subjected to detailed analyses of their success. Most recorded the hours and numbers of participating students, but few had follow-through data that could yield information on how students fared after receiving services.

2. The Importance of Strong Leadership

All the college personnel we interviewed acknowledged transfer as an integral part of the community college mission, and most echoed the attitude expressed by college leadership, particularly on campuses where the president holds substantial tenure in his or her position. In colleges where the president and top leadership are champions of transfer, others in the college also seem to treat transfer as a top priority.

In colleges where there had been frequent changes in top leadership and serious financial difficulties in recent years, or in colleges in which vocational education was the traditional emphasis, transfer tended to have a lower priority. In colleges where transfer was less emphasized, interviewees often spoke of vocational education and basic skills education as being the top priority.

The leaders of transfer-centered colleges tended to be very focused on academic achievement on their campuses. They were vocal champions of honors programs, Phi Theta Kappa, and other programs that recognize student academic achievement. Presidents of colleges with high transfer rates tend to speak publicly about the importance of transfer success and to give public recognition to achievements of people and programs on their campuses that have contributed to student transfer.

3. Lack of Coordination across Programs

While many of the small, special programs appear to serve limited numbers of students and to have the potential to duplicate services, they serve as models of success and contribute greatly to awareness of transfer as an achievable goal. Many of these programs serve at-risk students in a way that general, campuswide services cannot.

Part of the rationale for these small, focused programs is to build a tight community of interest, with a number of other like-minded students, all working toward the same goal: transfer. This same spirit, which is key to the success of these programs, sometimes leads to duplicative, uncoordinated services. These small learning communities would be even more effective if they could reduce redundancy with services provided elsewhere on the campus. It takes a special kind of leadership to marshal the wide array of categorical programs and their funding sources. In the rare cases where we witnessed such leadership, it effected a quantum leap in the quality of services and in numbers of students served. For example, programs such as the Puente Project, Extended Opportunity Programs and Services (EOPS), and team tutoring programs for Women's Basketball provide similar services that feature counseling. Some programs are better equipped than others to provide these services. More effective coordination of these kinds of programs, as we witnessed on a couple of campuses (including collective decisions about how to best serve their participants) could lead to vast improvements in the quality of services, the numbers of students covered, and the effectiveness of the overall outcomes.

4. Weak Connections Between K–12 Schools and Community Colleges

Historically, community colleges, when they are considering transfer issues, have been more concerned about relations with four-year colleges and universities than with K–12 schools. This is understandable, given the way the problem has been defined. If the concern is seen narrowly, as a matter of how to increase the number of students moving from lower-division status in the community colleges to enrollment in upper-division courses in four-year colleges and universities, then K–12 education appears to be outside the scope of the discussion. In addition, the enormity of the task of articulating courses, informing students about four-year college and university options, and supporting currently enrolled students has fully occupied community college personnel. Several faculty members and support service staff expressed their reluctance to “interfere” with their K–12 counterparts, saying they did not want to second-guess them. This was not universally true, however, and we did find examples of extraordinary community college efforts to reach out to their K–12 counterparts, including administrator-to-administrator, counselor-to-counselor, and instructor-to-instructor collaboration. Some community colleges actually assigned full-time community college instructors to teach college-level courses to high school students on the high school campus. Their full salary was paid for by the community college, and they were full-fledged members of both the high school and the community college communities.

5. Highly Variable Collaborations Between Community Colleges and Four-Year Institutions

The degree of collaboration between community colleges and four-year institutions is highly variable. Geographic proximity accounts for some of the variation. Community colleges that are located within relatively easy driving range of a CSU campus seem to have closer working relationships at the departmental or curricular level. For example, one English department at a CSU campus was said to hold department meetings that were open to the faculty of the local community college. Other colleges seem to have almost no contact beyond that needed for course articulation. Established patterns of transfer also lead some institutions to collaborate. For example, if a majority of students who transfer are known to transfer to a college five miles away, there is likely to be a strong relationship. The amount of collaboration often depends on individual workloads, professional priorities, and the enthusiasm of particular individuals.

The kinds of collaboration also vary. Some community colleges offer upper-division university courses on their campuses with community college faculty teaching the courses. Some community colleges participate in regional intersegmental meetings of “like” professionals. For example, articulation officers from community colleges, CSU, and UC meet several times a year. The statewide academic senates of the three public higher education segments meet to address common academic issues, including transfer. Some community colleges are offering basic skills courses for university English departments. Ad hoc arrangements for faculty teaching exchanges vary from place to place. All of these collaborative arrangements are subject to both the commitment and the capacity of individual colleges and districts.

6. Research and Evaluation Undervalued

Generally, local capacity for data analysis and information use is very limited. With some notable exceptions, there is little evidence of information used to assess the effectiveness of programs. Leaders in the colleges vary in their concern about this limitation. Many seem to operate from a political model that reacts to current conditions and opportunities rather than from outcome data or quantitative analysis. The funding mechanism for community colleges, which is enrollment-driven, causes a certain amount of unpredictability in the annual budget. The annual budget for community colleges is also subject to budget cuts that can interrupt ongoing programs and services, and can undermine the morale of program personnel.

E. EFFECTIVE STRATEGIES

The following activities provide the most effective approaches to the transfer problem:

- **K–16 framework.** Several colleges we visited were working with partners in K–12

and higher education, focusing on the entire range of schooling, from kindergarten readiness through the attainment of a bachelor's or graduate degree. These frameworks addressed key barriers such as reading by the 4th grade, middle school algebra, early college awareness, and high school course requirements for admission into UC or CSU. A key element of a successful framework is the clarity with which each partner's role is spelled out and the ways in which each is held accountable for student outcomes. This type of plan requires focus on a well-defined regional catchment area—a limited number of area school districts, community colleges, and four-year institutions, including independent colleges. The best of these frameworks align individual activity within the segment and multiple cooperative arrangements between the segments.

- **Cross-functional framework.** Colleges with the most promising transfer programs had specific strategies to break down the barriers that often exist between faculty and counselors. The best of these plans paint a comprehensive picture and display a deep understanding of the needs—both academic and support—of the student population being served.
- **Sustained leadership.** Strong, committed, sustained leadership characterized the more promising programs we visited. In such cases, each of the partners recognized that the effort required sustained commitment from all partners.
- **Faculty and staff commitment.** All promising programs had a cadre of talented faculty committed to a high-quality education program and to collaboration with their counterparts in K–12 and the other segments. Equally important were committed and talented student service personnel who could successfully collaborate with their colleagues across the segments.
- **Campuswide priority.** Effective strategic approaches eliminate the traditional structural barriers separating faculty, counselors, and special program administrators. On a few exemplary campuses, transfer was recognized as a college priority—not just the purview of the individual categorical programs.
- **Emphasis on outcomes.** Increasingly, attention is being paid to student outcomes, not just processes. Examples include (1) evaluations of the success rate of individual students; (2) follow-up studies that allow the institution to track students and discover whether the program contributed to a student's success at the next level; and (3) evidence that data is being used to drive alterations in the program design.

Common to all of these promising approaches is widespread commitment. To achieve sustained improvement, efforts must be backed by administrators, faculty, and staff across programs and departments.

F. MORE SPECIFIC FINDINGS

1. K–12 Preparation

Several colleges reported that the demand for remedial courses is threatening the viability of the transfer program.

a. Lack of academic preparation. We found almost universal agreement that academic preparation is the most significant problem of students desiring to transfer, particularly among low-income black and Hispanic students. Colleges reported to us that the vast majority of students entering community colleges have skill levels below collegiate level. Many colleges reported that skills assessments for course placement direct approximately 75% of entering students to course levels below transferable courses in English and mathematics. Several colleges reported that, given the enrollment cap, the demand for remedial courses is threatening the viability of the transfer program. They simply cannot schedule adequate numbers of courses to cover the needs of their students. The growing necessity of offering these remedial courses comprises a significant part of the transfer picture.

The “catching up” that students must accomplish with coursework that is below the transfer level adds time to the education process and makes students vulnerable to distractions and exigencies that interfere with attaining the transfer goal. A recent study estimating the number of UC transfer-ready students in the California Community Colleges found that this group of students (40,000 to 45,000 students with at least 60 credits of UC-transferable courses and a grade point average of 2.4 or better) spent an average of 4.8 years enrolled in community colleges. The smaller number of students (9,000 to 11,000) who actually transferred to UC spent 3.1 years in community colleges. Other research confirms that the length of time spent enrolled in a community college correlates negatively with the probability of earning a bachelor’s degree.² Factors such as economic pressures to work, family responsibilities, and life problems are beyond the scope of community colleges to address. The academic preparation of students in high school also may be beyond the scope of the community college mission, but stronger academic partnerships between community colleges and high schools may be a critical component of both educational access and university transfer.

b. English learners short-changed. High school preparation for most community college students we interviewed—especially English learners—was described as abysmal. Public school students for whom English is a second language encounter major obstacles beyond attempting to master subject matter curricula. There is obviously more catching up that non-English speakers must do to reach an acceptable skill level for college matriculation. Students who are not literate in their native languages have even greater challenges than

²University of California, Office of the President, Student Academic Services, “Estimating the Number of Transfer-Ready Students and UC Transfer-Enrolled Students from California Community Colleges Compared on the Basis of Units Completed and Years Enrolled,” December 2001, Oakland, CA.

those who read and write and understand the structure of their native languages. Bilingual classes may help prepare students for oral communication, but they may not help with written language and academic content skills. In our interviews of students, we heard time and time again of the “trap” in which students felt their English-as-a-second-language (ESL) or bilingual program had placed them. They complained of the difficulty of getting off the ESL/bilingual track in high school and the deficit they experienced when they tried to compete in academic courses with community college students. While their English had indeed improved and many were articulate English speakers, they had missed out on much of the more difficult curricular material and had very little grasp of “academic language,” a necessary precursor to success in college.

The social and cultural challenges that these students face are also very real. Interviews with students and professionals in the colleges attested to the importance of creating a welcoming academic environment and of developing “family” feelings for students who do not identify with formal education, particularly higher education. The small programs that may not be models of efficiency tend to be the programs that provide the personal connection that helps students persist who differ culturally from the majority.

c. Poor high school learning environment. Students spoke of learning environments in which students participate passively in uninspired, chaotic educational programs. While they spoke critically and with regret of their high school education, individual teachers were cited as inspirational and important to educational persistence. The students’ passive role in educational planning in high school appears to have left them unprepared for the responsibility for course selection in college.

Some students emphasized what they characterized as two tracks in high school. If students have an academic orientation and have parents who advocate for them in terms of course selection and school relations, college course selection and course placement are not as likely to be barriers. Students who do not have families with college experience or connections to schooling, however, are more likely to accept schedules developed for them by counselors who do not have time to explore academic or career planning options. The significance of low achievement in English and mathematics classes or of enrolling in less rigorous courses is beyond students’ awareness.

d. Insufficient encouragement in high school. Students we interviewed were quite critical of the attitudes of teachers and counselors. High school was not an encouraging experience for many minority students (although there were notable exceptions). While formal assignment of high school students to academic tracks is discouraged in California’s public high schools, the sorting of students into courses based on academic performance and student or parent preference creates widely varying levels of academic preparation by the time students have completed high school. Counselors who assign students to courses and teachers are making important determinations about students’ futures as they pick courses for each student’s program for the school term. A large number of students interviewed for this study complained that many high school teachers and counselors were not encouraging, especially

Students we interviewed were quite critical of the attitudes of teachers and counselors.

for minority students. They also commented that high school counselors, where they existed, had very heavy student loads and could not give much time or attention to individual students.

2. Connections Between High Schools and Community Colleges

a. Underdeveloped connections between high schools and community colleges. The connections between high schools and community colleges have been given short shrift in the policy discussions of community college transfer. Community colleges themselves have focused much of their resources on the target: enrollment in four-year institutions. For example, the community colleges have invested significant resources in course and program articulation with the universities and transfer centers that provide information and university contacts. The fact that the overwhelming majority of students enrolling in community colleges from high school are being placed in English and mathematics courses below college level has not yet been translated into an action plan by many community colleges and high schools. The educational path between high schools and community colleges is particularly critical to the high concentration of Hispanic, black, and low-income students who will be enrolled in community colleges in the near future. Common understanding regarding course expectations, course sequencing, and student academic performance at the community college and high school levels is part of the academic connection that facilitates transfer.

b. Lack of effective academic coordination. Even though high school students arrive at community colleges in large numbers, we witnessed very little coordination between high schools and community colleges, especially in terms of curriculum content and sequencing. The limitations on capacity at both the high school and community college levels exacerbate the problem. Many community colleges draw from as many as a dozen high schools in their area, some of which may not hold community college enrollment and student success as a priority. Yet the numbers of recent high school graduates who will actually attend community colleges is high and will grow in the future. Strengthening the academic connection between community colleges and high schools would have multiple benefits, including making expectations clear to students, sharing expertise and resources, and streamlining course progression.

c. Inadequate opportunities for collaboration among faculty. The rare cases we witnessed of strong collaborative efforts seemed to grow out of individual faculty-to-faculty contact and not as a part of an organized effort. It was often unpaid and unrecognized. Faculty who did engage in such work added it to their own workloads, or they worked through professional associations that have members from the public schools as well as community colleges. A few teacher exchanges between colleges and high schools were found in this study. Usually, such collaborations occur due to informal connections among individuals. Other informal opportunities for curriculum alignment and consultation on pedagogy occur when high school teachers teach part-time in community colleges or community college teachers teach

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a college course at a high school. Occasionally, community college faculty teach advanced placement courses or other advanced courses (such as calculus) in local high schools. Counselors from community colleges teach courses with titles like "Preparing for College" and "Study Skills."

d. Little cross-cutting work on curriculum. While there is currently little cross-cutting work on curriculum, the implementation of the High School Exit Examination in 2004 may be an opportunity for more collaboration between the community college and public school segments. To date, there has been no connection between high school preparation and community college placement exams, which themselves differ widely from college to college.

The establishment of new statewide curriculum frameworks and the upcoming implementation of high school exit exams in 2004 might provide an opportunity for community colleges and high schools to improve the sequencing of course expectations and assessment for course placement. Currently, community colleges admit virtually anyone who applies, but new students must be assessed as to course placement. Coordination of academic expectations for high school graduates and academic expectations for entering community college students could potentially improve academic quality and smooth the transition between high school and college. Likewise, this study did not find evidence that community college instructors have had any training to make them aware of the curriculum frameworks that are now shaping high school course content. Given the general agreement that the greatest barrier to successful transfer is student underpreparation, the coordination of educational planning, including appropriate course selection for college and coordination of curricula among the public schools, is a matter of importance.

e. Some promise in dual enrollment. Dual enrollments in high school and community college serve a number of purposes in the public education system of California. Advanced high school students who need higher-level courses can enroll in community college courses. Students who function better in the less regimented environment of college often find appropriate courses in community colleges. Sometimes course offerings at a local community college enrich the curriculum at the high school, particularly in the performing arts and in physical education. These dual enrollment opportunities can motivate students by making them familiar with college settings and courses, and such opportunities can bring educators from the two systems together.

f. Highly variable and vulnerable outreach activities. Student services personnel in community colleges often have the responsibility for high school outreach, which includes presentations at the high schools about educational opportunities at the local community college, meetings with students to talk about careers, and shared cultural events. Counselors from the community colleges often have designated times to meet with high school students at their school site. Some colleges make an effort to market cultural events and sports events to high school students as well as to college students. One goal of such efforts is to familiarize

students with college settings so that they will be informed about opportunities and be comfortable with college culture.

Many student service personnel interviewed for this study complained that the lack of continuity of college outreach activities to the high schools was damaging to working relationships and to effectiveness. Outreach to high schools is considered expendable when funding is short; therefore, it is not fully integrated into ongoing planning. Community college connections to local high schools are highly variable, depending on leadership and resources.

3. Preparation of Community College Students for Transfer

a. Community college transfers perform well in upper-division courses. Feedback from the four-year public universities in California regarding the academic performance of community college transfer students shows them to be adequately prepared for upper-division academic work. The data show community college transfer students to have grade point averages slightly higher than so-called “native” students at CSU. At UC, community college transfer students are comparable to UC “native” students.³ This speaks well for the quality of community college education of the students who are currently transferring. The challenge is extending the success of those who transfer to the larger population of community college students, particularly underrepresented minorities and other disadvantaged students.

b. Highly variable quality of community college preparation. In addition to the varying ability and preparation of the students entering community colleges, the diversity of purposes in the community college missions makes course offerings at the colleges variable as to rigor. From college to college, the emphasis within the community college mission varies. At colleges that emphasize vocational education, the high costs of vocational programs may limit funds available for transfer course offerings. At some colleges, the strong need for basic skills and remedial courses can limit transfer course offerings. At open enrollment institutions, student demand, as well as leadership focus, determines the emphasis within the mission.

Maintaining the academic rigor of community college education is important for transfer success. The concern about academic rigor varies among the colleges depending on the emphasis within the mission and the community’s expectations for the college. Students enrolled in any single class are likely to be in that class for different reasons. If the class is “open”—that is, it has no course prerequisites and no skill-level requirement—anyone may enroll. The result is that the range of students’ skills is likely to be great. In many courses, the diversity of life experiences enriches the classroom, but a student who is taking a course for personal enrichment is likely to have different expectations from one preparing to be admitted to the university. A vocational

Community college transfer students have grade point averages slightly higher than so-called “native” students at CSU.

³California Postsecondary Education Commission (CPEC), *A Review of the Data on Academic Performance of Community College Transfer Students* (Sacramento, CA: February 2003).

student meeting requirements for a certificate program might not aspire to the same kind of proficiency as a university-bound classmate. All these goals have to be taken into account by instructors. Opinions vary as to whether the benefits of such variety outweigh the challenges, but it is generally acknowledged that there is a temptation for instructors to regress to the mean with regard to classroom expectations. In colleges where transfer is emphasized, the expectation for a high transfer rate and pride in student performance in upper-division coursework seem to help sustain high academic standards across the campus.

c. Academic planning and course-taking patterns. With regard to preparing students for transfer, succeeding in the “right” courses in the “right” sequences is important. This can be challenging for students who do not work closely with college staff to plan their course-taking. Generally, students want to follow the quickest path to transfer, if transfer is the goal, and they may be detained along the way for many reasons. Sometimes, students make mistakes in course selection. They may rely on other students for advice. Some students interviewed for this study said that they had been ill-advised by counselors. In some cases students could not get the courses they needed at the college they attended, and they had to enroll at other community colleges to complete their programs. The statewide chancellor’s office for the community colleges has indicated that approximately 17% of colleges have reported that they have insufficient curricular offerings in transferable English and mathematics to support transfer students. Approximately 37% of colleges have reported a lack of sufficient curricular offerings in majors.⁴ On the other hand, several of the colleges we visited had very successful transfer programs. Large numbers of transfer students were accepted for admission to the most demanding and selective four-year institutions. Several of the colleges that were paying increased attention to the transfer function after years of benign neglect bemoaned the plight of their institutions because they were having a hard time attracting able students to their college—those students tended to enroll in colleges with a strong transfer record.

d. Importance of English and math. A 1996 study by the University of California known as the Latino Eligibility Study states, “What are the major reasons for students’ ineligibility [for transfer to UC]? Two words summarize the majority of cases which are only a course or two away from meeting the university’s minimum eligibility requirements. They are math and English.”⁵ Those interviewed for this analysis echoed this finding that the failure to succeed in college-level courses in math and English is a major barrier to transfer. Moreover, early failure in these areas of public school curricula create attitudinal barriers and avoidance

⁴California Community Colleges, Chancellor’s Office, Student Services and Special Programs Division and the Technology, Research, and Information Systems Division, *Transfer Capacity and Readiness in the California Community College: A Progress Report to the State Legislature* (Sacramento, CA: March 1, 2002, rev. June 2002), www.cccco.edu/divisions/ss/transfer/attachments/trans_cap_%20readi_ccc.pdf.

⁵Aída Hurtado, Richard Figueroa, and Eugene Garcia, editors, *Strategic Interventions in Education: Expanding the Latina/Latino Pipeline* (Santa Cruz, CA: University of California, 1996).

starting as early as middle school. Particularly in math, the education deficit is difficult to overcome by the time a student enrolls in community college. Sometimes, English and math are called “gateway classes,” because a student who cannot succeed in these curricula cannot progress beyond the access point. Community colleges have made a major commitment to overcoming educational deficits in English and math. Every college visited for this study provides tutoring services and a variety of programs to support academic success. Often, proficiency in English and math and building successful learning behaviors are at the core of special programs.

4. Characteristics of Successful Programs

Beyond the academic preparation of entering students and the sufficiency of course offerings, several additional characteristics describe colleges with successful transfer programs:

- A high degree of internal coordination among professionals from instructional and student services staffs;
- Learning communities in which groups of students learn together and develop social bonds to each other and to their college; and
- A college culture that prizes academic success.

When these conditions exist, they stimulate attitudes and practices that result in cohesive and collaborative efforts across the college. For example, in colleges where counseling staff meet on a regular basis with academic departments to update each other on curriculum and student planning matters, instructional and student services staffs speak well of transfer efforts. A particularly effective strategy paired an instructor with a counselor to guide, teach, and motivate a group of students. Another successful pairing of instructional and student services personnel occurred in a college in which counselors are assigned to work with specific disciplines. The integration of academics and support services appears to be an important aspect of a culture of success.

Further, college presidents whose institutions have high transfer rates were surprisingly well-informed, in our interviews, about the specific activities and achievements of those special programs that have transfer goals. These leaders are promoters of transfer, speaking publicly about their college’s transfer efforts and transfer outcomes.

At the most effective “transfer” colleges, moreover, the presidents’ overall messages about the importance of academic success were connected to their support of research and evaluation of programs. These presidents also acknowledged and praised the personnel responsible for academic success. For those colleges with a culture of academic success, that culture became self-perpetuating and reached throughout the college.

Several small student-support programs, such as the Puente Project and MESA, provide students who have similar interests or backgrounds with supplemental services and personal attention; these projects are an important part of the transfer effort in the community colleges. Another feature of these small programs is that they rely on “active”

learning. Students often work in groups, study together, teach each other, and relate to their teachers more as coaches or guides than as the “sage on the stage.” These programs exist at many colleges throughout the state. They offer many of the same features that Extended Opportunity Programs and Services (EOPS) have provided for a generation, but they serve a smaller number of students and provide more academic support. These small programs are expensive by community college standards of cost per student, but their impressive success rates in retention and academic success of disadvantaged students make a strong case for their small cohorts and rich staffing. The social and economic value to the state of educating these students in these programs is great. We think, however, that they could be better coordinated without sacrificing the close-knit communities they represent.

5. Connections Between Community Colleges and Four-Year Institutions

Those community colleges with strong reputations for transfer to four-year colleges and universities seem to have good articulation with CSU and UC. They have transfer guarantees (extensive lists of California Articulation Numbered [CAN] courses that are assured acceptance of credit transfer) and working partnerships with personnel at selected UC and CSU campuses. In addition, it seems to benefit a college to be sizeable and relatively close to the four-year college or university campus where it transfers its students. These and other factors have resulted in a small number of community colleges in the state accounting for more than 60% of the state's transfer students.

The connections between community colleges and four-year colleges and universities have been a focus of concern for a long time. During the past 20 years, much has been done to improve the ease of transferring from community colleges to four-year colleges and universities. A number of innovations have strengthened the connection between the educational segments. The Intersegmental Coordinating Committee (ICC), made up of representatives of the segments of higher education and a representative from CPEC, has taken on several projects to improve coordination of higher education. Guaranteed transfer agreements have proliferated as a means of smoothing the road for community college transfer. The CAN system is an innovation that creates common course numbering to provide students with a crosswalk between the different numbering systems across segments. The Intersegmental General Education Transfer Curriculum (IGETC) sets forth the general education core requirements across segments. These improvements are a sampling of the measures taken to coordinate curricula in California's large and decentralized system of higher education.

Another important development in the improvement of intersegmental cooperation to facilitate smooth transfer of lower-division students to CSU and UC has been the Articulation System Stimulating Interinstitutional Transfer (ASSIST). ASSIST is an on-line database of articulation agreements among the higher education institutions in California. It receives funding from UC, CSU, and the community college system. It was begun in 1985; during the course of its development, it has vastly improved the accuracy and accessibility

of articulation information. Those interviewed for this study praised ASSIST both as a tool for counselors and as a potential tool for students. Some counselors are coaching students to use ASSIST themselves. Most are using it as a professional tool. Many expressed relief that they could be confident of the accuracy of ASSIST information compared with the “old days” when accuracy of information depended on paper communication and timely local updating of curriculum information. Funding for ASSIST has been uncertain because it does not exist in the state budget as an ongoing expense, but its importance as a tool for educational planning for community college students was stated repeatedly during the interviews for this study. In addition to the cost of maintaining the ASSIST database, enhancements planned for this program include modifying it to make its use easier for students, and marketing it better to increase student use.

The Intersegmental Major Preparation Articulated Curriculum (IMPAC) is another important intersegmental effort to make community college transfer smoother for students. The Intersegmental Council of Academic Senates has undertaken work to secure common agreement on what constitutes core coursework for 30 majors. Faculty from the same major have varying ideas of what constitutes adequate preparation for the major. This causes enormous variability in the requirements for transfer. After an initial phase of progress in the first two years of funding, the project now is in its fourth year and is struggling to overcome stalemate over individual courses. As it operates by consensus, this effort depends on flexibility and willingness to compromise.

On most community college campuses, transfer centers are the focal point for most coordination with the four-year campuses. Regular visits from university representatives are scheduled through the transfer centers. Visits to colleges are also scheduled through this program. Most community colleges also hold an event called “Transfer Day” that brings representatives from four-year colleges and universities to campus. Transfer centers provide students with an easily accessible location on campus to find information, advocacy services, and advice about baccalaureate completion. The community colleges are dependent on their relationships with regional four-year universities for a good part of the service they provide to local students at these transfer centers.

Throughout the state there are additional practices that connect two-year and four-year colleges and thereby support transfer. In some cases, there are CSU extensions on community college campuses. In other cases, UC or CSU offer specific classes or programs on community college campuses. These programs enable community colleges to expand their lower-division offerings while enabling the university to use facilities away from its campus. This has been particularly productive in remote areas and helpful for working adults who cannot travel to a university campus easily. In some cases, community college instructors offer lower-division, usually remedial, classes on a university campus. Contracts between the community college and the university specify the financial and personnel arrangements that make such collaborations work. In some geographic regions, professionals in the same subject area but who work in different segments have created informal associations with occasional meetings. In most of these cases, the collaboration is successful and benefits students. The close proximity of two-year and four-year faculty brings professional advantages to both.

Chapter Four

Criteria and Recommendations

In this chapter we suggest the criteria we believe must be met if California—and particularly its system of community colleges—is to successfully cope with the critically important and very large problems we have identified in this report. We also recommend actions based on these criteria.

Based on the review of analytic information and documents as well as community college site visits and interviews with well-informed observers who see the central issues from very different vantage points, we conclude that the following criteria must be met if substantially more Californians are to be prepared for postsecondary education and achieve a baccalaureate degree:

1. The issue of access to, and successful completion of, a high-quality undergraduate education must be reestablished as a very visible central feature of California economic and social policy. The policy agenda must extend beyond ensuring that students who successfully complete their secondary education have the opportunity to attend college. It must extend to ensuring that:
 - A higher proportion of young people successfully complete high school;
 - These individuals leave high school with a level of knowledge and skills that fully prepares them for entry into postsecondary education;
 - Regardless of the point of entry, there is a path by which attainment of a baccalaureate degree is possible; and
 - A higher proportion of young people attain a baccalaureate degree.
2. The approach to dealing with this issue must be *regional* in nature. The size and nature of the obstacles that must be overcome vary dramatically from one part of California to another. Any solutions to the identified problems must accommodate this variety.
3. The approach to dealing with the issue must be *intersegmental* in nature. No single component of the educational enterprise can resolve these issues without the active collaboration of its strategic partners. More specifically, the community colleges can be successful in their missions only through strong relations with public schools and public and private four-year colleges and universities (UC, CSU, and independent institutions).
4. The approach must be *cross-functional* in nature. That is, it requires committed, active involvement of faculty, support staff, and administration. Barriers to transfer occur in every aspect of the work of the college. Addressing those multiple barriers must be a campuswide effort.
5. Policy levers must be aligned and designed to further the attainment of the overall objective. The principal levers include:

- Leadership and decisionmaking mechanisms;
- Financing and resource allocation mechanisms; and
- Accountability mechanisms.

6. The capacity required to function effectively within this context must be created at the state, regional, and institutional levels.

These criteria lead directly to a multifaceted action agenda of steps to be taken. Key among them are the following.

A. STATE-LEVEL POLICY LEADERSHIP

The issues identified early in this report are so large, so complex, and so important as to require—and deserve—policy leadership at the highest level of state government. In the best of worlds, the governor, with the support of the Legislature, would articulate the vision and establish the expectation that sights be raised, “system” performance improved, and state policies aligned with the overall objective of raising the educational attainment levels of Californians. Absent leadership at this level, the responsibility falls to legislative leadership, the California Postsecondary Education Commission, segmental leadership, and/or a coalition of business and civic leaders who have the interest and influence to push this agenda to center stage. Clearly, leadership of the segments and the superintendent of public instruction must play crucial roles, but the requirements exceed the reach of any of them acting alone. If leadership does not emerge from the formal leadership structure, it is recommended that a coalition of foundations collaborate in creating a nongovernmental body that can assume the mantle of leadership. This is not the preferred alternative, but it may be the necessary one.

B. REGIONAL LEADERSHIP

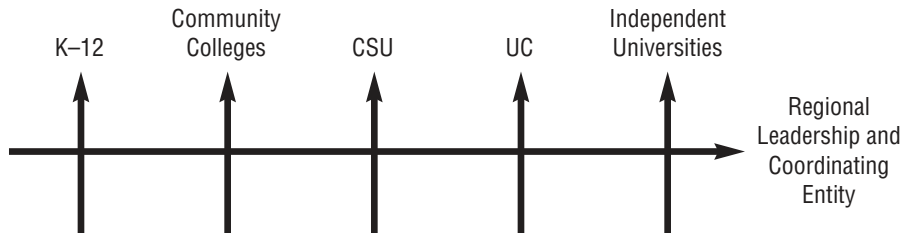
We have concluded that solutions must be sought on a regional basis with involvement, as appropriate, of:

- The region’s public schools, including elementary, junior high, and senior high schools;
- Its community colleges;
- Appropriate UC and CSU campuses; and
- Private colleges and universities in the region.

Experience and analytic findings indicate that the establishment of regions and the inclusion of educational institutions are best determined behaviorally, not by executive action or statute; student movement among schools and colleges should define the appropriate organizational coalitions. Since the formal structures of college and university governance are assumed to remain as they are, we recommend that:

If leadership does not emerge from the formal leadership structure, it is recommended that a coalition of foundations collaborate in creating a nongovernmental body that can assume the mantle of leadership.

- The management approach to this issue can be conceived most effectively as a matrix management approach, one in which the formal statewide governance structure stays in place and in which the management of the regional “public agenda” is vested in an entity that has improvement of educational attainment in its region as its sole purpose.



The composition of the oversight body for this entity can vary from region to region, the only stipulation being that it include substantial representation from the noneducation sectors of the region. The regions should be large enough to have multiple high schools, but not so large that frequent collaboration is difficult. The first priority for establishing these entities should be given to those areas of the state with the greatest population growth that can demonstrate the potential to materially improve the transfer rate and ultimately the attainment of the baccalaureate degree. Leadership may emerge from K–12 districts, or any of the public or private higher education segments, county superintendents of schools, or business or civic leaders.

- Resources should be provided to these regional entities to increase educational attainment. These regional bodies would allocate funding to participating partners in the ways they mutually agree would best assist in reaching this overall goal.
- The regional entity should be the focal point for monitoring performance in the region, identifying the points in the pipeline where the largest problems occur, identifying strategies for attacking the problems, and managing the process through which the educational providers in the region collaborate in carrying out these strategies. It is the entity and the partners collectively that are held accountable for meeting the goals.

The policy framework that overlies community colleges works against implementation of an approach such as that envisioned here.

C. ALIGNMENT OF STATE POLICY TO REINFORCE PURSUIT OF THIS AGENDA

In the course of this project, two points became abundantly clear. First, the policy framework that overlies community colleges works against implementation of an approach such as that envisioned here. The policy framework is not regional in nature; at the state level, it is a one-size-fits-all approach, and at the local level it is usually splintered into many small, scattered approaches. Even more importantly, either (1) it contains so many procedural mandates specifying *how* to do business that it squeezes out the initiative and flexibility required to

creatively use regional educational assets to the maximum benefit of the citizens of the region and the State of California, or (2) it is so loosely coupled that accountability is impossible. Secondly, the finance mechanisms surrounding the community colleges create disincentives to successful pursuit of the public agenda on which we are focused. Among other shortcomings, it rewards access but not *success*, and it is insufficiently responsive to regional differences, particularly regional variations in growth rates of populations to be served.

Achieving the alignment necessary will inevitably be a long and arduous process. If it is to be done—and done well—it must be based on a sound foundation of relevant information. Therefore, we recommend that:

1. A thorough policy audit of the financing mechanism for community colleges should be undertaken with an eye toward creating a mechanism that:
 - Is adequately funded to carry out the mission;
 - Is equitable for colleges with similar student and programmatic characteristics;
 - Is simple to understand with transparent incentives and disincentives;
 - Reflects the different realities in different parts of the state;
 - Rewards collaboration across programs at the campus level and across segments; and
 - Rewards achievement of success.

In the process, any features of the funding mechanisms for other educational entities that need adjustment should also be noted and appropriate recommendations made.

2. An audit of other policies affecting the abilities of community colleges to function effectively in a collaborative manner in pursuit of regional objectives should also be conducted. The California Education Code is noted nationally for its prescriptive provisions, particularly as they relate to community colleges, the most tightly regulated of the higher education segments.

In our analysis, we compiled enough information to be absolutely convinced that policy alignment with this (or any other) agenda is sadly lacking. Policy has become the accretion of many special purpose acts and actions, layered each upon the other. A thorough study that documents the case in terms persuasive to policymakers and strong enough to counter special pleadings by narrowly focused interest groups must be performed by independent entities with impeccable credentials.

D. DEVELOP ANALYTICAL CAPACITY AT THE STATE LEVEL

The state's analytical capacity has been seriously eroded, especially during the recent budget crisis. We noted with alarm the severe reductions required of the statewide office of the chancellor. These reductions are particularly devastating in terms of reducing the ability of the office to analyze data. The community colleges' data system holds a rich treasure of important data and information; the state's capacity to mine that information has been seriously compromised.

The analytical capacity of the California Postsecondary Education Commission has been decimated by recent budget cuts. Under new, aggressive leadership, CPEC can play a greater role in higher education policy, but only to the extent its capacity to provide timely and quality analysis is materially enhanced.

The state's analytical capacity has been seriously eroded.

E. DEVELOP IMPLEMENTATION CAPACITY AT THE REGIONAL LEVEL

Logic leads us to the recommendation that any solution to the issues on which we have focused must be approached on a regional and intersegmental basis. This is a substantially different mode of operation than is the norm in California. As a consequence, the capacity to function in this way needs thoughtful development. The specific areas requiring attention include the following.

1. Leadership Development

How can you be effective in organizations where you have little direct authority over the actual service providers? What tools do you have at your disposal and how do you deploy them effectively? How do you get historically competing enterprises to collaborate? The California Community College Leadership Development Initiative—a higher education leadership program centered at Claremont Graduate University, and in collaboration with CSU Sacramento, San Diego State University, and the University of California—seems a natural place for the development of such a program.

2. Planning, Evaluation, and Analysis

Success at the regional level will be heavily dependent on having appropriate information about such things as:

- Those students and potential students who are, and are not, being effectively served;
- The paths students are taking through multiple institutions to achieve their goals;
- Gaps in service for different groups of students; and
- The effectiveness of different approaches in addressing specific aspects of the problem.

In short, attention needs to be focused on helping develop skills to compile data and create information that drives the planning and evaluation functions in this regional, intersegmental environment. This too could be a charge to the Leadership Development Initiative or a research-based entity like the American Institutes for Research (AIR); RAND, West Ed, or a university-based evaluation effort. In any event, the building of this capacity is central to its success.

3. Academic Content Delivery

It is clear that resources will not be sufficient to serve more students and to serve them more effectively if the current approach to delivering instruction is the only option available. For some of the core courses in which large numbers of students enroll, alternative delivery approaches must be considered. Use of technology-enhanced instruction—instruction that maintains “high touch” without “high cost” as a necessary correlate—will be a necessity. This will be the case for math and English courses particularly, since these are the ones that cause problems at the key transition points (for example, students coming to college and being assessed as having deficiencies requiring remediation). English as a Second Language (ESL) is another area requiring focused attention.

Against this backdrop, it will be important to foster development (or selection) of courseware that:

- Has the imprint of the faculty from the involved institution without requiring that they do all the development;
- Is designed to yield an agreed-upon set of learning outcomes;
- Is usable across multiple institutions (and can be moved from region to region with minimal rework); and
- Can be scaled to serve very large numbers of students in a cost-effective way.

4. Assessment

One of the major issues in intersegmental relationships concerns the evidence of student learning and preparation as students move from one sector to another. The high school exit exams do not do double duty as college entrance/ placement exams, although discussions along those lines have taken place between CSU and the state Board of Education. The community colleges have done little as a system to break down the barriers to placement created by the multiplicity of placement exams offered by the colleges. This is an area where statewide solutions are ultimately desirable but which may require regional approaches. In any event, measures that would be useful in assessing student preparation for college and that would be administered early in the high school experience could help identify gaps in preparation and suggest ways to improve student preparation by the high schools. The California State University pilot project to administer the CSU placement exam to high school juniors in order to provide them with feedback about college readiness seems very

A longer-term strategy for assessing student learning at every educational level is necessary for bridging the transition between K–12 and higher education.

promising for addressing the transition issues between high schools and the expectations for student readiness by CSU. No parallel effort is underway between high schools and community colleges, due in part to the fact that no standardized placement exam is used by the community colleges for determining college-level work. State leadership is a realistic and promising short-term agenda for addressing the transitions between high school and college.

Ultimately, a longer-term strategy for assessing student learning at every educational level (K–12 and higher education) is necessary for bridging the transition between K–12 and higher education. Completion of coursework in one educational sector may or may not be accepted as evidence of content mastery in another educational sector. More attention needs to be directed to assessment of learning that demonstrates levels of proficiency in agreed-upon areas of performance. The more interinstitutional and intersegmental that students' education becomes, the more critical it will be to move toward assessment (and certification) of learning as the coin of the realm.

Given these realities, it will be necessary to develop longer-term approaches to assessment that can be agreed upon by the collaborating partners. Another reality is that development of assessment instruments *de nouveau* is prohibitively expensive. As a consequence, it will be necessary to select (and/or tailor) existing instruments with the selection criteria being that:

- The instruments measure what students know *and are able to do*;
- They discriminate among levels of proficiency; and
- The results can be certified so that students have a portable record of competence that can serve them well regardless of the path taken among educational providers.

There are very few instruments that meet these criteria, but possibilities include the following:

- WorkKeys, developed by ACT, has the benefit of being benchmarked against numerous (over 2000) jobs and discriminates levels of proficiency. For instance, it cuts across high school and community college proficiencies. Because it has been developed primarily as a device for easing the school-to-work transition, it needs to be subjected to analysis that would assess its school-to-school utility.
- Praxis I, developed by the Educational Testing Service (ETS), is the successor to the previous Preprofessional Skills Test (PPST) and covers the basic skill areas of math, reading, writing, and listening. It covers fewer skill areas than WorkKeys, but still deserves attention.

5. Student Services

Given the objective of helping a larger number of students be more successful, and considering the background and home support systems of many of these students, high levels of student service support will be essential. As with instructional services, it will be

impossible to provide higher levels of student services to more students without changing the way those services are delivered. Again, technology and centralization of some functions offer a partial solution. The groundwork for some of this has already been developed through projects such as the following:

- CAN (California Articulation Numbering system) generates common course numbering to provide students with a crosswalk between the different numbering systems across segments.
- ASSIST (Articulation System Stimulating Interinstitutional Transfer) is an on-line service that provides transfer audit aid.
- IMPAC (Intersegmental Major Preparation Articulated Curriculum), which originated in the Intersegmental Committee of Academic Senates of the three public higher education entities, seeks to define core academic requirements for the most common majors taken by transfer students.
- IGETC (Intersegmental General Education Transfer Curriculum), as its name implies, sets forth the general education core requirements across segments.

The current budget crisis places in jeopardy those initiatives designed to improve student services for a larger number of students. Each of the above initiatives represents a huge investment in time and money. Although far from perfect, each has materially contributed to reducing course and program barriers to transfer. They should be continued.

However, more could be done, including:

- Increasing the availability of academic tutoring assistance, so that it is offered on a 24/7 basis (for example, through Academic.com or Smarthinking.com);
- Enhancing the services available at writing centers; and
- Increasing academic advising services.

F. DEVELOP IMPLEMENTATION CAPACITY AT THE CAMPUS LEVEL

Just as there is a need for new kinds of capacity at the regional level, so too is there a need at the campus level. Here, however, the menu of additional capacity is shorter, consisting primarily of two main areas:

1. Leadership and Staff Development

Additional training for institutional managers is needed on such topics as:

- Managing human resources in order to achieve productivity gains;
- Aligning internal decisions with the objective of moving more students through the pipeline to the baccalaureate;
- Best practices in academic programs;

The current budget crisis places in jeopardy those initiatives designed to improve student services for a larger number of students.

- Best practices in student services;
- Using information to effect change; and
- Aligning internal processes with external audiences (and other providers).

Again, the Community College Leadership Development Initiative would be a logical provider of these services.

2. Development of Planning and Evaluation Capacity

Analyses are needed to:

- Identify students who are not being successful in the institution;
- Identify the most promising points of intervention;
- Evaluate intervention strategies; and
- Evaluate alternative teaching and student service delivery methods.

Throughout the project, we were taken by the mismatch between the time and energy devoted to compiling data and that directed at conversion of that data to information supportive of decisionmaking. Much more capacity of the latter type is needed. The first has institutional executives and first-line managers as the primary audience. The audience for the second is primarily planning and institutional research staff.

2004 Postscript

The Impact of Recent Budget Reductions and Enrollment Pressures on Access and Quality

By Nancy Shulock

The Institute for Higher Education Leadership & Policy was asked to research and provide information about the combined impact of enrollment growth pressures, fee increases, and budget cuts on high-growth districts in the California Community College system. This postscript to *Ensuring Access with Quality to California's Community Colleges* offers the results of our study.

We focused on districts in five southern counties that are experiencing high rates of growth in the high school graduate population and the projected college population: Los Angeles, Orange, Riverside, San Diego, and San Bernardino. We interviewed district and college personnel in ten districts within those five counties as well as in the fast-growing Los Rios Community College District in Sacramento (see list of those interviewed, pages 68-70). The focus of the interviews was on actions taken and the impact of those actions on student access, the provision of services on campus, and program quality.

In addition to interviewing college and district personnel, we spoke with state officials at the chancellor's office and the Student Aid Commission. We reviewed systemwide data collected and published by the chancellor's office and we viewed a videotape of the November Board of Governors' meeting at which a panel of southern campus CEOs and a panel of students spoke about the impact of recent budget cuts.

In this postscript we first present statewide trend data on budget, enrollment, course sections, and access. We then report findings from our interviews with state, district, and college officials, first with respect to actions taken to respond to budget cuts in a time of high growth and then with respect to the impact of those actions. We include in our findings a discussion of district- and college-level decisionmaking, specifically, the constraints that officials face in responding to challenges, and the leadership capacities that they bring to the table. Finally, we offer our analysis and conclusions.

A. STATEWIDE TRENDS

1. Budget

Cuts in the community colleges budget began with the Budget Act of 2002–03. As a result of declines in tax revenues related to a sluggish economy, Governor Gray Davis originally proposed a community college budget of approximately \$4.5 billion, which would have represented a nearly 10% reduction from the previous year. After significant protests by community college students and others, the enacted budget actually increased by approximately 2% overall as compared to 2001–02. However, substantial cuts in particular

Lower-than-expected tax revenues led to midyear reductions in the budgets of many state programs for 2002–03, including the community colleges.

categorical programs were included in the final budget, including cuts of nearly 30% in matriculation funds, 45% in funds for telecommunications/technology, 20% in economic development funds, and more than 60% in the Fund for Student Success. In addition, the 4.6% increase in general apportionment funds was not nearly sufficient to cover the substantially higher increases in the costs of salaries, contributions to the Public Employees' Retirement System (PERS), and health care benefits paid for out of those funds.

Lower-than-expected tax revenues led to midyear reductions in the budgets of many state programs for 2002–03, including the community colleges. General apportionment funds were cut back to a level representing a 2.9% increase over 2001–02 rather than the 4.6% increase included in the original budget. In addition, further cuts were made to categorical programs, including decreases of 25% to telecommunications/technology and 15% to economic development (on top of cuts already made to those programs), a 12% cut in Partnership for Excellence funds, and the virtual elimination of scheduled increases in funds for facilities maintenance and instructional equipment.

Community colleges fared little better in the Budget Act of 2003–04. Increased state funding for enrollment growth of approximately 1.5% was grossly insufficient in light of projected enrollment growth of 4% per year, as estimated by the community colleges, to accommodate the influx of Tidal Wave II students. In addition, funds for enrollment growth were largely offset by cuts in other categorical programs, such as the Partnership for Excellence (PFE), which was cut by an additional 15% from the revised 2002–03 level. PFE funds, while a relatively small share of the total budget, represent a substantial share of the funds colleges have available for discretionary use.

Overall, the community college budget for fiscal year 2003–04 is nearly the same as the budget for 2001–02, which was the year before the recent cuts began. A 4.4% increase in general apportionment funds from the state over the two-year period was offset by large cuts to categorical programs. Higher student fee revenues (resulting from the recent increase in student fees from \$11 to \$18 per unit) offset cuts in state apportionment and kept the overall budget flat (increases in student fees always offset decreases in state investment rather than adding revenues to the community colleges). Coming at a time of severe enrollment pressures and dramatic increases in personnel and other costs, an overall budget increase of only 0.1% over two years has had dramatic effects on a segment of higher education already severely underfunded.

Looking ahead, the 2004–05 budget submitted by newly elected Governor Arnold Schwarzenegger protects the community colleges from the cuts that were imposed on all other segments of education as part of the plan to reduce the state's massive budget deficit. While the University of California (UC) and the California State University (CSU) received proposed general fund reductions of about 7% and 8% respectively, the California Community Colleges are budgeted for about a 4% increase in general fund support. This increase includes funding for 3% enrollment growth, which approximates the level of growth that would be expected in the absence of other major changes. However, in view of the direct and indirect restriction of access to UC and CSU through budget reductions, and the large number of students who have already been shut out of the community colleges

(see below) and could be looking to return, increased funding of 3% for enrollment growth will not be sufficient to accommodate all students seeking to attend the California Community Colleges.

Additional proposals of note in the governor's budget include major fee increases for all three segments (from \$18 to \$26 per unit for the community colleges), a proposal that students already holding a baccalaureate degree pay \$50 per unit to attend a community college, and a reduction in the availability of Cal Grant financial aid (a 10% reduction in the maximum allowable income for Cal Grant recipients and 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 awards). Together, the governor's various proposals have the potential to alter the composition of community college students as fee increases and enrollment caps at the four-year institutions create incentives for students who are eligible for UC or CSU to enroll instead in community colleges, while fee increases and an increasingly competitive environment at the community colleges dampen demand among those students who have no viable alternative to enrolling at a community college.

Together, the governor's various proposals have the potential to alter the composition of community college students.

2. Headcount Enrollment

The community colleges experienced steady increases in enrollment over 15 consecutive terms from fall 1995 (beginning the recovery of enrollment lost during the last recession) through fall 2002. Enrollment had been increasing by more than 3% each term since spring 2001, reflecting the growth in demand among Tidal Wave II students. That trend came to an end in fall 2002, when enrollment increased by only 0.2% following the initial budget cuts outlined above. An actual decline in enrollment of over 3% (53,689 students) occurred in spring 2003 as a result of reductions in course section offerings.

A recent report by the chancellor's office¹ examined changes in student demographics related to the enrollment decline between spring 2002 and spring 2003. The analysis found no significant changes in the student population by age, gender, or race/ethnicity. There was a significant increase in the share of students who indicated a goal of transfer or attainment of a degree or certificate, with an accompanying decrease in the share of students with all other goals (including those acquiring or updating job skills, improving basic skills, completing a GED, pursuing intellectual development, or undecided about their educational goal). The share of students enrolled full-time increased, resulting in a larger share of students earning 12 or more units.

The most significant change was in the distribution of students by enrollment status. The number of first-time and returning students (those returning to the system after some period of dropping out) declined, while the number of continuing students increased,

¹California Community Colleges, Chancellor's Office, *Access Lost: An Examination of Supply Constriction and Rationing in the California Community College System* (Sacramento, CA: September 2003).

reflecting the enrollment priority given to students already attending the community colleges. Compared to earlier years, a smaller percentage of first-time and returning students were over age 25, a change most likely due to a reduction in courses being offered in the evenings and on weekends.

The chancellor's office recently conducted a survey of the colleges to get a preliminary estimate of changes in enrollment in fall 2003.² The data are preliminary, as they are based on enrollment at "first census" rather than "end of term." Based on the survey, however, the chancellor's office estimates a further enrollment decline of 2.2% between the spring and fall terms of 2003, and a fall 2002 to fall 2003 decline of 5.2% (or 90,695 students). It is unclear how much of the enrollment decline this fall is due to the fee increase and how much to the reduced supply of course sections. Based on the fact that enrollment declined by 3% in spring 2003 (when there were schedule reductions but no fee increase), the chancellor's office estimates that the cuts to course offerings were a much larger factor than the fee increase in this latest enrollment drop.

The number of course sections offered across the system declined by over 3% between fall 2002 and spring 2003.

3. Course Section Offerings

The number of course sections offered across the system declined by over 3% between fall 2002 and spring 2003. Nontransferable course sections were reduced at a disproportionately higher rate than transferable courses, and vocational course sections were reduced at a higher rate than nonvocational sections. This is likely due both to the higher cost of and the greater use of part-time faculty for nontransferable and vocational courses. Part-time faculty are often the first target for reduction in tight budgets. Losses in full-time equivalent (FTE) student enrollments related to course section reductions were not evenly distributed across the curriculum. Losses were greatest in the curricular areas of general studies and computer and information science, while nursing and natural (life) science, among other areas, actually had gains in FTE students.

The recent fall survey conducted by the chancellor's office suggests that course section offerings declined another 6% between the spring and fall terms of 2003, although some colleges had not yet closed their enrollment periods at the time of the survey, and others had not yet performed section additions or reductions that could change the results. While the survey estimate may not be precise, it is certainly the case that course sections further declined. Survey responses from the colleges indicated that by reducing course sections, establishing waiting lists and denying enrollment, most colleges were turning students away. The survey of campuses revealed a large range of reductions of course sections, with some colleges cutting sections by as much as 25%.

²California Community Colleges, Chancellor's Office, *California Community Colleges: Fall 2003 Preliminary Enrollment Report* (Sacramento, CA: November 2003).

4. Estimates of Access Lost

The reports from the chancellor's office attempt to quantify the loss of access to the community colleges based on enrollment projections calculated by the chancellor's office and the Department of Finance before the recent budget cuts occurred, taking into account the surge in the college-age population known as Tidal Wave II. According to the Department of Finance, enrollment in the community colleges should have reached 1,826,090 by fall 2003. The chancellor's office placed the estimate somewhat higher, at 1,829,359. The estimate of actual enrollment for fall 2003 based on first census data is 1,653,448. The number of students denied access to the community colleges due to reduced supply (through budget cuts) and to reduced demand (through the fee increase) is approximately 175,000. This figure includes the actual decline in enrollment of approximately 90,000 students between the fall terms of 2002 and 2003, with the remainder representing the difference between actual enrollment and what was projected by the Department of Finance and the chancellor's office.

5. Access in 2004–05 and Beyond

The chancellor's office is in the process of estimating the impact of the governor's higher education proposals on community college enrollment. Although no official estimates are available, system representatives are cautioning about the need to distinguish between enrollment levels and the provision of access to all students seeking to enroll. With the community colleges slated to receive funding for enrollment growth, they should be able to restore course offerings sufficiently to accommodate increased numbers of students. With approximately 175,000 students having been shut out over the last year, there should be plenty of students vying for available seats. Although headcount enrollment should stabilize if not increase, this would not mean that full access has been restored. In all likelihood it would mean that a better prepared strata of students has pushed out many other students who would be denied access to the community colleges and, most likely, to any higher education opportunity. Below we list the factors that, under the governor's proposal, would shape access to and enrollment in the community colleges:

- The 10% reduction in admission of new freshmen at UC and CSU would explicitly redirect about 7,000 students to the community colleges, although it is likely that some of these students will choose to enroll in private or out-of-state public institutions.
- The lack of funding for enrollment growth at UC and CSU will cause additional students (beyond the 7,000 officially redirected) who are eligible for UC or CSU to enroll instead in the community colleges—estimates from the two systems peg this loss at approximately 25,000 students.

The number of students denied access to the community colleges due to reduced supply (through budget cuts) and to reduced demand (through the fee increase) is approximately 175,000.

- The 10% fee increase at UC and CSU will create additional incentives for lower-division students to enroll in a community college as a lower-cost alternative.
- The fee increase from \$18 to \$26 per unit at community colleges and to \$50 per unit for students who already have a baccalaureate degree will reduce demand for community college enrollment on the part of less prepared students and those who are in need of retraining to improve their employment prospects in today's economy.
- Funding for enrollment growth of just 3% would accommodate regular projected growth in the adult population but would not provide space for the 175,000 students who have been shut out since 2002–03 and who might be trying again to enroll.

The likely combined effect of these factors is to shift the composition of the community college student body toward younger, better prepared students and away from those who are less prepared for college and, more importantly, less prepared to navigate the increasingly overcrowded and competitive environment of the community college. As will be apparent from the findings of this study, the combination of enrollment pressures and budget reductions has already begun to reshape community colleges precisely in this direction.

The problem faced by these districts can be stated as the challenge of maintaining access and quality.

B. FINDINGS

This section summarizes what we heard in the interviews with respect to actions that have been taken at the district and campus levels, and the impacts of those actions. We also relate what we heard about the constraints that college and district decisionmakers faced in attempting to respond to difficult circumstances, reactions from the local community about the actions taken, concerns about the future, and priorities for future investment if and when additional funds become available. While we are not reporting answers district by district, we emphasize those responses that were most commonly heard and we make note of any areas where we heard major differences of opinion.

1. The Problem

The problem faced by these districts can be stated as the challenge of maintaining access and quality during high levels of student demand, amid major budget reductions (imposed first in spring 2003 and again in fall 2003), and in the face of a significant fee increase. Most of these districts and colleges have faced strong enrollment growth for several years. When the first major budget cuts hit in spring 2003, most were already carrying an enrollment level of FTE students well above their funded cap. This base level of unfunded enrollment was compounded by continued high growth rates in the college-age population, continued strong demand from the adult population, and increased demand from many students

This system is notorious for being over-regulated.

eligible for UC and/or CSU who have chosen to attend community colleges because of the steep fee increases and/or the capacity constraints at the four-year institutions.

Exacerbating the severe budget cuts are the constraints that the California Community Colleges face in managing their funds. This system is notorious for being over-regulated and this lack of flexibility for managing resources is particularly problematic in challenging times like these. In addition to constraints upon the use of funds, the *effective* budget reductions are larger than a year-to-year comparison would indicate, because of increases in mandatory costs such as benefit levels for the Public Employees' Retirement System (PERS) and the State Teachers' Retirement System (STRS), and utility rates. Finally, the large degree of uncertainty (that is, not knowing what budget levels and enrollment targets will be assigned to the system, let alone districts and colleges) adds a layer of complication for district and college officials.

2. Actions Taken

This section describes the variety of actions taken to meet the challenges described above. The impact of these actions is discussed in the subsequent section.

a. General enrollment management strategies. All of the colleges we studied took actions to reduce enrollment to bring it more in line with available resources. Community colleges have only two types of enrollment management tools at their disposal for controlling enrollment. They can reduce the class schedule and they can set priorities for registration across student groups. Unlike UC and CSU, they cannot set registration deadlines or declare "impaction" and set supplemental admission criteria. As open enrollment institutions, the community colleges accept and enroll all prospective students who pay the fees and successfully register for classes. Most colleges give higher registration priority to continuing students in accordance with their accumulated units. We found one college that gave the highest priority to incoming high school students who planned to attend full-time. While few colleges changed the priority order for registration within the last year, this tool has had a greater impact than in the past on determining access to college. Not only did the priority assigned to advanced continuing students crowd out entering students and those with fewer units accumulated, but the scarcity of available courses encouraged continuing students to take more units, which effectively crowded out even more students with lower registration priority.

b. Reduction in the number of unfunded FTE students. Many of the districts we studied entered the 2002–03 year with large numbers of "unfunded FTE students"—enrollment well in excess of funding caps. Several of these districts took concerted action to cut enrollment in order to bring the number of FTE students closer to the funded level. They did this both as a financial and a political strategy. Financially, reducing unfunded enrollment goes hand-in-hand with reducing the class schedule, as it allows colleges to constrict the schedule without as much pressure on class size. Politically, some colleges found it untenable to make cuts to

support services and support staff when college funds were being used to support classes for students whose costs were not funded by the state.

c. Course reductions. While many colleges looked first for cuts to noninstructional areas, few were able to avoid significant reductions to the class schedule. Percentage reductions in course sections ranged widely from about 2% to as high as 20%. The highest percentage cuts were taken in those districts that began with large unfunded enrollments because, for many of them, their first priority was to bring enrollment more closely in line with available funding. Other factors accounting for the differences across colleges included district size (with larger districts having more flexibility to take other actions), the extent of advanced financial planning for contingencies, and the amount of flexibility in the faculty salary portion of the budget. Districts with a higher percentage of funds locked into faculty salaries (for reasons such as contract obligations, the rank structure of the faculty, or the need to comply with system regulations on full-time faculty) had to look to noninstructional areas to shoulder a larger portion of the cuts.

**Colleges
uniformly
worked to
“protect the
core.”**

There was a high degree of consistency across colleges in the criteria used to determine which course sections to cut out of the schedule. Colleges uniformly worked to “protect the core,” which in almost all cases meant equal protection of transfer-oriented and vocational courses that were required for transfer, degrees, or certificates as well as “gateway” classes such as basic skills. A few colleges gave priority to transfer-oriented courses over vocational courses, but the majority said that both missions are equally important to their students and communities, and needed to be equally protected. The protection of the core included protecting even low-enrolled courses if such courses were capstone courses or otherwise required for program completion. Within the context of protecting courses that students need for transfer, degrees, and certificates, most colleges took the following actions to reduce the size and cost of the class schedule:

- Reduced low-enrolled courses by raising the required minimum enrollment or applying existing minimum enrollment requirements more consistently;
- Reduced sections of multiple-section courses by consolidating sections within the college or across the district in the case of multi-campus districts;
- Reduced courses taught by adjunct faculty (although core courses were often retained with full-timers reassigned to teach them);
- Reduced frequency of course offerings;
- Reduced or eliminated electives—those courses not required for a degree or certificate regardless of popularity (an example of a popular elective that was eliminated in one college is History of the Middle East);
- Made substantial and disproportionately large reductions to noncredit courses both because they are not considered “core” and because they are more likely taught by adjunct faculty; and

- Within the noncredit realm, larger cuts were taken in personal enrichment and community service courses than in adult basic education, although cuts were taken in all areas of noncredit.

One criterion that was notably little used in determining cuts is program cost. Most respondents said that high-cost programs, particularly nursing, were protected because of their importance to students and the community. Several officials reported that nursing course sections had actually been increased. In one college with a particularly large vocational offering, cost was a factor as a greater percentage of vocational courses were cut due to their lower class sizes and higher costs. In general, however, officials spoke of the need to protect strong programs even if they are high-cost programs and of the need to maintain the financial flexibility even to begin or expand needed occupational programs such as allied health and auto technology, despite their cost. In many cases, those programs for which the college had a strong reputation were protected, as were programs not offered elsewhere within the college's geographic region.

While colleges did institute course reductions in accordance with priorities and established criteria, the short time frame they faced did not allow major programmatic criteria to be used. Program elimination is ordinarily the result of longer-term processes implemented through faculty senates, and some colleges have put those processes in motion. But in the short run, for example, programs using high proportions of adjunct faculty were particularly vulnerable to cuts regardless of program priority.

d. Increases in class size. Class sizes have increased on virtually all campuses—as a means of minimizing the impact of reduced sections on student access to courses. In many cases the official class-size maximums have not been raised because that requires academic senate action, but the “fill rates” of classes (i.e., the percentage of maximum class size that ends up enrolling) is consistently higher than usual. This is the combined result of faculty being more lenient about letting students enroll initially and the much reduced attrition rates as students are reportedly much more reluctant to drop classes now that it is so hard to enroll in classes. Officials uniformly praised faculty willingness to enroll students over the limits—often well over the capacity of the classroom itself. There are widespread reports of crowded classes with students sitting on the floor and spilling out into the hallways. This is certainly the case in the early weeks of classes when students who have not been officially enrolled continue to attend in the hopes of eventually gaining admittance.

e. Increased use of distance learning. We did not hear that colleges looked to distance learning as a common strategy to help accommodate students and minimize loss of access. We do want to point out that one college that serves a large portion of its students through distance learning did find it economical to increase this portion. Although they had to take cuts in both the distance and the site-based portions of their program, they took less from distance learning because, with the infrastructures already in place, they could accommodate additional students in these programs more easily than in classrooms.

f. Major schedule changes. Many of the colleges we studied have instituted major changes to the class schedule. Several have eliminated winter intersession and at least one of their summer sessions. The colleges taking these steps did so because these special sessions are not serving “core constituencies.” For example, they serve a large number of CSU students taking prerequisites, retaking courses, or otherwise picking up a needed course. Some colleges have eliminated all or part of their evening/weekend programs. One college eliminated all classes offered on Friday afternoons. Another college eliminated all of its summer evening courses. Such cuts were based on economic rather than programmatic decisions, as these programs usually involve large numbers of adjunct faculty and require the campus to be open at times when it would otherwise be closed. Eliminating these parts of the college schedule allows savings in utilities, maintenance, and other support costs. One college offered the incentive of priority registration for courses and sequences of courses offered at times that are normally less popular.

Several colleges eliminated or severely curtailed their concurrent enrollment offerings that provide college courses to high school students either on high school or college campuses. These cuts were made only in part as a financial decision. In large part, they were a political reaction to the abuses in the concurrent enrollment program that were uncovered last fall, mostly with respect to athletics and physical education. Colleges chose to make disproportionate reductions in all concurrent enrollment courses as a political safeguard against further legislative action.

There have been major reductions in adjunct faculty.

g. Personnel reductions. No colleges in this sample have laid off full-time faculty. It is clear that the layoff of full-time faculty is seen in all colleges as a last resort. Colleges have experienced large reductions in full-time faculty through retirement and attrition, with several colleges offering retirement incentives. There have been major reductions in adjunct faculty.

For classified staff there have been layoffs as well as reductions through attrition in most, if not all, colleges. Large reductions to hourly staff have been made as well. All colleges have tried to make these staffing cuts as far away from direct student services as possible, but the extent of the required cuts has made it impossible to protect student service personnel. While some colleges have succeeded in avoiding cuts to counselors, most colleges have taken major cuts even to counselors and personnel who provide support services directly to students. This has translated into reduced hours of available services. With many colleges instituting hiring freezes or stricter processes for approving new hires, the loss of staff through attrition has taken random and uneven tolls on various support functions of the colleges. In some cases this can have the effect of reducing staff support for services that are mandated, like the “matriculation” line item.

h. Administrative program and service reductions. Program reductions show a wider variation than the personnel actions described above. The actions listed here, although taken in large part to achieve savings in personnel costs, involve major changes to the availability of

support programs and services. Each of the following cuts has been made in at least one of the colleges we reviewed:

- Reduced library hours, including library closure on weekends;
- Closed child care center;
- Eliminated job placement center;
- Closed workforce preparation center;
- Reduced hours in transfer and career center;
- Eliminated some athletic teams;
- Eliminated some learning communities;
- Reduced funding for book vouchers;
- Reduced support for sabbaticals and faculty release time;
- Reduced the use of substitute faculty (no substitutes for absences of one day);
- Shifted full-time faculty out of noncredit programs;
- Reduced service contracts;
- Reduced equipment expenditures; and
- Reduced or eliminated professional development and travel.

i. Summary of reductions. In making program reductions, colleges tried to minimize the effect on student progress generally, and tried to give special consideration for their particular student body. Colleges with a particularly strong transfer program tried hard to minimize the impact on student progress toward transfer readiness while campuses with a student population more balanced between transfer and vocational programs tried to protect progress in both areas. Colleges that principally serve working adults tried to protect the evening courses and services that best serve those students. In spite of these efforts to protect campus strength, however, the cuts were simply too large not to have had major impacts on students' experiences and academic progress. These impacts are detailed below.

3. Impact of Actions

This section reports the impact of the actions that colleges have taken, as reported by college and district officials with whom we spoke. We report the impact on access, on student progress and success, on student attitudes and morale, on the diversity and composition of the student body, on the quality of instruction and support services, and on the breadth of the curriculum. We also report on the impact of the fee increases in all public segments and of the capacity constraints at UC and CSU.

a. Impact on student access. Reduced access to classes is unquestionably the biggest impact of the actions that colleges have been forced to take. Every official with whom we spoke raised

Students are simply not able to get classes as they have in the past.

concerns about limited student access. With strong demand for classes and far fewer course sections offered, students are simply not able to get classes as they have in the past. Even with larger class sizes somewhat mitigating the effect, officials are concerned that students who need access the most are being denied it. One noted that under the best of circumstances it sometimes takes “heroic action” by college personnel to get students to attend. With the new hurdles presented by the reduced class schedule and long waits for services, many fear that students will simply give up. Some fear that such students will be “lost forever” while others believe that students will return if conditions ease in the near future because of the hard work colleges have been doing in outreach and in publicizing the importance of college.

Everyone agrees that the greatest impact on access has been felt by the less well-prepared students, who are not as savvy to deadlines, fees, financial aid, and ways to navigate the system. These students do not know how to “play the game” of getting into full classes and otherwise advocating for themselves. Many of the colleges we studied primarily serve first-generation students who have limited understanding of the educational system. Students who are somewhat uncertain about attending in the first place or about their ability to succeed are those most likely to be discouraged by the reduced access to classes and services, according to campus officials. Some respondents were very concerned that this will shut down the pipeline to the diverse clientele that the community colleges aim to serve.

The priority for registration is shaping the impact of reduced access. Most colleges give priority to continuing students over new students, and among continuing students, to those with the most accumulated units. This has made it even more difficult for new students to get classes, although in many cases entering students take a different set of classes than advanced students, so the conflict is minimized. One notable exception to this is that continuing students who began some time ago with remediation needs are now ready for entry-level college English and math courses and have registration priority over entering students. This can particularly affect those students who were eligible for UC or CSU but chose the community college for reasons of cost, convenience, or because of overcrowding at the four-year institutions. While colleges have generally protected these high-demand core courses, they have been unable to add sections to meet the demand because of budget constraints.

It is widely reported that continuing students are taking more units, although final data for fall 2003 are not yet available to document this. To the extent that average unit load has increased, access for incoming students is even more restricted. Although one might conclude that by taking more courses, continuing students are hastening their progress toward their educational goals, many officials told us that this is not necessarily the case, because students are taking whatever they can get, not necessarily what they need. They do so for a variety of reasons—to increase their registration priority for the next term, and to maintain their full-time status for purposes of financial aid or insurance.

The elimination or severe curtailment of special sessions in winter and summer have reduced access for a certain subset of students, including, as already mentioned, UC and CSU students who use the community colleges to take prerequisites, to make up a course, or

to otherwise continue to make progress toward their degree goals. The restriction of access to this population will worsen the capacity problems at the four-year institutions. Disproportionate cuts to evening course schedules also have a greater impact on access for working adults who are not able to attend during daytime hours.

The elimination or curtailment of concurrent enrollment programs has reduced access for high school students. While not considered a core constituency for the community colleges, concurrent enrollment has been viewed as a legitimate means of providing AP courses for students in rural schools or other schools that lack a rigorous college preparatory curriculum and for providing students with study skills and other skills to ease their transition to college.

b. Impact on student progress and success. The impact on student progress and success derives from two sources—a reduction in course availability and a decline in student support services. The greatly limited class schedule is slowing student progress, according to campus officials. There are those students who have not even enrolled, entering students who are unable to get the courses they need at the times and in the order they should take them, and continuing students who, in spite of their registration priority, are not always able to take what they need when they need it. As noted above, continuing students are taking what they can get, even when it is not the ideal course or course sequence for meeting their goals. When students are forced to take courses out of order, they may not be prepared and may not do as well as they otherwise would. And when they take classes that they do not want or need, they prevent others from enrolling in those classes. The increase in the time needed to complete a degree or certificate program has negative financial consequences not only for students but also for the economy as a whole. A number of officials told us that the business community has complained about shortages of skilled workers in their areas.

The greatly limited class schedule is slowing student progress.

Another interesting phenomenon with uncertain consequences is that attrition from courses has decreased significantly. Apparently, students are staying in courses that, under normal circumstances, they would drop because they are not doing well. We heard that there are far more Ds and Fs being earned in classes. On the one hand, the increased incentive to stay enrolled in a course is probably leading some students to do better and improve their progress. On the other hand, there are students who earn failing grades or grades that will not help them continue to progress toward their goals.

Officials said that the reductions in student support staff are having an impact on student progress and success. Many noted that the population they serve requires strong connections with support staff. The colleges that are doing well with these economically disadvantaged and underprepared populations do so precisely because they put so many resources into student support, in the form of tutorials, extra labs, freshman experience courses, etc. Cutting these services is seen as having a huge deleterious effect. Some used the phrases “handholding” or “TLC” to describe the support needs of their students. This level of support has not been available since the cuts. Many officials believe that services from these support staff are as vital to student success as the faculty who teach classes. They claim

that the quality of services must be affected now that students have to wait in long lines to see staff who are overworked.

c. Impact on student attitudes and morale. According to district officials, some students (usually those most skilled in navigating the college scene) have merely been “inconvenienced” by the actions taken at their colleges. They may have to take classes at less convenient times, or take classes at more than one community college. This is in contrast to the experiences of those students who are overwhelmed by the new challenges posed by the cuts. These students tend to be those least familiar with the college environment. The panel of students who spoke at the November Board of Governors’ meeting presented the more dire picture of student frustrations. They spoke of the high anxiety of being preoccupied by the difficulty of getting into desired courses. They spoke of “near fist fights” over getting into courses, of having to spend weeks attending classes (and purchasing the expensive books and keeping up with the homework) before learning whether or not they were to be officially enrolled. They spoke of crowding into over-flowing classes, and of having to take courses that they didn’t want to take, merely to maintain full-time status for other purposes. They spoke of having to accept poor grades because of fear that they could not drop the course and ever get into it again. They spoke of the long waits to see faculty during office hours (if they could see them at all) and the long lines to see counselors and other student services staff. They noted the loss of personalized attention that so many students need.

d. Impact on diversity and composition of the student body. Without exception, district officials noted that the loss of access has likely been most severe for the less sophisticated students who do not know how to play the game to get enrolled in classes—the students whose “road map of higher education” is not well defined. These tend to be first-generation students, and low-income and minority students. In addition to not knowing what to do to gain access, low-income students may lack the resources to gain access. For example, students with cars can shop around to neighboring community colleges and assemble a package of courses, and students without full-time jobs may be able to adjust their schedules to attend courses when they are offered. To the contrary, students with set work schedules or who are dependent on bus schedules have much less flexibility to accommodate the changes at the colleges.

As already noted, the reduction in evening and weekend offerings has had a disproportionate impact on older, working adults. One college official acknowledged that the evening and weekend program they closed served a large proportion of African American students, but that they needed to close it for financial reasons, in spite of the known impact. Officials also suspect a disproportionate impact on noncredit students who are less aggressive about persisting and advocating for the continuation of their classes. By contrast, some described transfer-motivated students as the most vocal in advocating for classes.

The loss of access has likely been most severe for the less sophisticated students.

There is some difference of opinion as to the social cost of this disproportionate impact on the less sophisticated student. Some college officials said the students who are not enrolled tend to be the more “casual” students rather than those with “more serious intentions and goals.” In that regard, the officials were not overly troubled by the impact. But others see these “less serious” students as the ones whose college participation is most important for society both for civic and economic reasons. Various respondents spoke of serving this population as a “moral imperative” and a “civil rights issue.”

Many suspect, although this cannot yet be documented, that the community college population will become younger as a result of the changes to the class schedule and the reduction in support services. Students of traditional college age (ages 18 to 24) will be able to accommodate the curtailed schedules better than older working adults who have less flexibility. Moreover, students coming right out of high school may not be as dependent on the kinds of outreach and initial support services that nontraditional students need to help them navigate the college registration and transition processes. Finally, the capacity constraints and large fee increases at UC and CSU may be encouraging more students who are eligible for those systems to begin in the community colleges, which could change the composition of the student body toward younger, full-time students.

e. Impact on quality of instruction and support services. Everyone acknowledges the tradeoff that exists between class size and quality, yet most of the colleges we studied allowed increases to average class size in an attempt to mitigate the loss of access. Increasing class size is a particular problem given the nature of the community college student body, many of whom cannot be expected to flourish in a large lecture environment. One college president said that the access–quality tradeoff “is a painful, horrible discussion to have. . . . I can’t tell you where we will come out but we will have to find a balance in terms of class size beyond which we will not go. . . .”

In addition to the impact of class size, there is a probable impact on quality as a result of the decisions made to reduce faculty costs. While understandable from a financial and morale standpoint, the decisions that colleges have uniformly made to protect full-time faculty jobs and reduce adjuncts have forced new teaching assignments. The reassignment of full-time faculty to teach courses previously taught by adjuncts will certainly have at least a short-term impact on quality as faculty gear up for teaching courses that they have not previously taught. A similar effect comes about as a result of faculty retirements and attrition when remaining faculty are reassigned to fill those teaching assignments.

There are some programs, particularly in the vocational arena, where program quality is highly dependent on the faculty’s time and ability to regularly update and reshape curricula to stay current with the needs of employers. The ability of faculty to engage in these efforts has been greatly curtailed by reductions in faculty positions and the increased responsibilities attendant to teaching ever-larger classes. One official noted that “technology is passing over the competence of the faculty” in some key vocational programs. Some expressed concern about the impaired capacity of vocational program faculty, collectively, to

College officials are concerned about the quality of student support services because their staff are so overworked.

pursue innovations that respond to workforce needs, and about the resulting long-term economic impact of this loss of capacity.

College officials are concerned about the quality of student support services because their staff are so overworked. Staff have less time to spend on the individual needs of students than in the past. In addition, staff attrition, layoffs, and hiring freezes have had uneven impacts on program areas, with some units struggling to maintain quality services.

Cuts to facility maintenance, equipment repair, and equipment purchase are also having an impact on instructional program quality. Students have less access to computers in the labs, as maintenance and replacement needs go unmet. And some equipment-intensive academic programs lack even basic equipment needs.

f. Impact on the breadth of the curriculum. College officials have made it a priority to protect “core” programs across the curriculum, including high-cost programs in areas of high need or particular college strength. Nevertheless, there is likely to be some impact on the breadth of the curriculum even in core areas. Particularly in the vocational area, colleges have become less responsive to community needs because they are unable to hire new faculty or introduce new programs. As noted, faculty attrition and the large reductions in adjunct faculty have had differential effects on programs. Officials noted that in some cases programs may have to be closed down due to lack of faculty.

On a more positive note, some officials reported some benefits of having to explore program priorities. While only a few reported that low-priority programs had been closed, several noted that new procedures for program dissolution were being implemented.

g. Other impacts. College officials noted a few other potential impacts of their actions that are not included in any of the above categories but that warrant reporting:

- The virtual elimination of concurrent enrollment will exacerbate the capacity problem at UC and CSU.
- There is concern about the inability to keep the commitments that have been made through early outreach programs, like the Passport to College program that made commitments several years ago to then-fifth and -eighth graders that colleges may not be able to keep.
- While budget constraints have increased the value of seeking external grants and contracts, few colleges have the staff resources to support grant writing.
- Colleges may lack the resources to institutionalize some of the innovations that have already been funded by external grants.
- Staff layoffs, in the order of “last hired, first fired,” have already had some negative impacts on the diversity of management staff.

h. Impact of student fee increases and capacity constraints. The vast majority of the officials with whom we spoke said that the severe reduction in available class sections had a much greater

impact on student access than did the fee increase. In fact, only a handful of officials felt that the fee increase has been a significant barrier to access. They believed that students had gotten used to the idea of the fee increase and that when it occurred, its effect was minor compared to that of schedule reductions. One official did note that the previous governor's veto of the bill to provide free attendance to illegal immigrants has had a huge impact on the enrollment of those students. The director of the Student Aid Commission reported that the commission's aggressive outreach efforts seem to have been successful because the application rate for Cal Grants has increased considerably since last year. However, the "take rate"—the percentage of Cal Grant applicants who actually convert and use their awards—has decreased significantly compared to previous years. The director speculates that this reflects the loss of access to all students—but primarily community college students—who have aid awards but are unable to use them because they could not get classes or were otherwise discouraged from attending.

As noted earlier, the substantial fee increases at the University of California and California State University have most likely had the effect of redirecting many students who are eligible for UC and CSU to the community colleges. This may ease the capacity problem at the four-year segments and reduce the state's cost of educating this group of students, but it exacerbates the capacity problem at the community colleges.

Not surprisingly, we heard concerns about curtailed opportunity at UC and CSU for transfer-prepared students. Some officials reported that the limitations on accepting transfers had affected intersegmental relations in the region for the worse, but most said that local relationships across segmental partners had actually improved as all parties recognize the advantages of working together in these increasingly challenging times. Some reported resentment about what they saw as poor communications at the system levels about the decisions made by UC and CSU to curtail transfer admissions.

4. Constraints on Decisionmaking

We asked the college and district officials about the extent to which various state, system, or district laws and regulations prevented them from making decisions that would have been in the best interests of students. Since the California Community Colleges are notorious for being over-regulated, we were not surprised to hear of a number of constraints that prevented some actions from being taken.

a. Requirements for full-time faculty positions. There is both a statutory guideline and an implementing regulation that severely limit college flexibility with respect to the use of faculty. The guideline states that districts should have 75% of student credit hours taught by full-time faculty. This dates to 1988 under AB 1725 and was not predicated on research about the effectiveness of full-time versus part-time instructors, according to one district official. Nevertheless, it still operates today, and district personnel are vigilant about the ratios they maintain. Even more binding, however, is the implementing regulation for AB 1725, which

computes an “obligation” of full-time faculty positions that each district must maintain. This number was set in 1988 and has been adjusted annually by formula ever since. If a district falls short of its obligation it must pay back to the state general fund a specified rate equivalent to an average full-time faculty salary. For districts that are close to their obligation level, this can cause problems. Several officials noted the apparent illogic of having to hire full-time faculty while laying off adjunct faculty and classified staff. One noted that this is especially constraining for colleges with high percentages of noncredit instruction (for example, those colleges that serve as the designated delivery system for adult education) because instructors of noncredit courses are more likely to be adjunct faculty. One official commented that some colleges opt to pay back the funds over the short term rather than incur the ongoing costs of a new hire.

b. 50% instruction rule. AB 1725 also required that districts spend at least 50% of their operating budgets on direct instruction. This focus on inputs, as opposed to outcomes, is constraining to districts and colleges. The colleges we studied have a student population that generally needs and benefits from the services provided by counselors and other direct student services personnel. One official said that counselors are “every bit as important as faculty” to students’ success, yet expenditures for counselors do not count toward the 50%.

c. Categorical program requirements. Officials generally support the purposes for which various categorical programs were initially enacted, yet some report that they could honor those purposes more efficiently if they could have flexibility over the use of funds or if they could combine categorical funding into a block grant. As one recent example, a district official cited the current-year augmentation for financial aid administration that was intended to increase awareness of Cal Grant availability. The requirement that all personnel hired with these funds report directly to the director of financial aid at the district prevented them from hiring hourly employees to spread the word about Cal Grants in targeted locations. Some categorical programs have matching expenditure requirements for districts to retain the categorical funding. Many people expressed concerns that categorical programs attempt to create one-size-fits-all solutions that are often in conflict with the regional missions of the community colleges. We heard calls to decrease the regulations that hamper the ability of colleges to serve students and a plea to “unshackle the community colleges and hold them accountable.”

d. Collective bargaining contracts. The variety of union contracts that districts negotiate can limit flexibility at a time of severe budget reductions. Many officials cited contractual obligations, such as restrictions in transferring or reassigning staff, as limiting their ability to use personnel resources most productively. In addition, mandated costs such as PERS and STRS contribution levels were often mentioned as reducing the discretionary funds available to meet district needs.

5. Leadership Issues

Most respondents were satisfied with the leadership capacity of their districts and colleges. They reported that they generally had good data before them to assist with decisionmaking and that the principal barrier to exercising good judgment was the continued uncertainty with respect to their budgets and funded enrollment levels. Some did note the possibility of an impending crisis of leadership in the community colleges because new generations of leaders will not have the apprenticeship opportunities that the current leaders have had. For example, it is now commonplace for faculty to move directly into deanship positions, whereas in past eras assistant dean positions were available and often provided administrators with opportunities to hone their leadership skills.

Respondents uniformly spoke highly of the collaborative efforts that had taken place among faculty, staff, and administration to deal with these difficult challenges. They praised faculty for willingly taking more students than required and they praised staff for taking on many additional assignments. No one spoke of any major struggles between constituent groups over the decisions and actions taken. One official did note that it is more difficult for colleges with large vocational sectors to come together over the tough decisions because of the different cultures that separate academic and vocational faculty. Another spoke of the problem faced by the vocational sector of the community colleges because of both internal and external pressures to see the colleges as principally junior colleges, and noted that the business community will need to be more vocal in advocating for vocational programs in this newly restricted fiscal environment.

Externally, leaders have generally been able to maintain good relationships both with regional UC and CSU campuses and with the community. Many said that relations with the four-year institutions had been strengthened by the need to work more closely together. We asked about complaints from the community and/or local boards. Most said that complaints were about reduced access to classes, large classes, and layoffs. These kinds of complaints were described as more pervasive than the complaints over fee increases, which were apparently not seen as significant for these communities. Others noted community complaints about cuts in continuing education and courses aimed at older adults. Several noted that the business community has complained about a shortage of trained workers in key employment sectors. In general, no one said that relationships with the community at large were particularly contentious, however. Most of the blame for these hard times seems aimed at Sacramento rather than at local institutions.

6. Looking Ahead

We asked district and college officials about their concerns for the future as well as where they would target any additional resources that become available. Most responses reflected the words of one official that this year was “bad but manageable,” but most feared that the worst is yet to come. Many described how anticipation of, and advanced planning for, the cuts had moderated the impact this time, but felt that the next round would be much more

harmful. Although a variety of responses were given for priority uses of new funds, the common denominator was that funds should be available for flexible and discretionary use, in accordance with the principle that *community* colleges need to be responsive to the particular needs of their communities, rather than be subjected to across-the-board strictures on the use of funds. Several complained about the demise of funding for the Partnership for Excellence (PFE) because it had been the one program that allowed campuses to establish their own priorities. Most campuses felt that their collaborative processes to identify priorities for the use of PFE funds had been very strong.

The following is a sampling of the priorities that campus and district officials gave for the use of new resources (the first two were by far the most common responses):

- Restoration of the base;
- Enrollment growth and access;
- Cost-of-living adjustments must be included so that faculty and staff do not keep falling behind;
- Staff to help students make critical sequencing decisions in order to prepare for the workforce or for transfer;
- Stop unfunded mandates;
- Funds for basic skills;
- More learning communities following the MESA (Mathematics, Engineering, Science Achievement) model;
- New faculty and support for curriculum development;
- Instructional technology;
- Technology and equipment—not the large purchases but the many smaller purchases that are needed;
- Facilities, particularly for science;
- Outreach; and
- Staff in general—many people are now doing two to three jobs.

All of the districts appear to have applied good planning strategies.

C. ANALYSIS AND CONCLUSIONS

1. Decisionmaking and Leadership

The districts we studied have approached these very difficult challenges with an impressive degree of skill and professionalism. In an environment that is known for its contentiousness, we heard of a high degree of collaboration and consensus. People from all constituencies appear to have come together in the interests of the students, to whom they are clearly committed. All of the districts appear to have applied good planning strategies of identifying their clientele and their particular strengths and protecting those areas to the

The multiple missions of California's comprehensive community colleges may be facing a crossroads.

extent possible. Almost all respondents agreed that their data and information systems were adequate for decisionmaking. Unfortunately, they do face a number of key constraints that have undoubtedly prevented these apparently sound decision processes from working to the best advantage of students.

2. Multiple Missions at Risk

Although it is early to say this definitively, it does appear that the multiple missions of California's comprehensive community colleges may be facing a crossroads. Using the criterion of protecting "the core," large cuts have been made in personal enrichment courses, community services, adult education, noncredit courses, basic skills, and services to high schools. District and college officials seem united in their belief that the core purpose of the community colleges is to assist students to prepare for transfer and to earn degrees and certificates for employment and as preparation for future education. So far, it appears that the transfer and vocational missions share a place in the "core," but there were some misgivings about the ability of higher-cost vocational programs to hold onto their current share with the pressure to increase class size. Many vocational programs are limited in increasing class size due to facilities, equipment, and safety concerns. In addition, increased demands on faculty will curtail the capacity of vocational faculty to develop new programs that respond to the needs of the workplace. As one official said, "No one is asking the cost of not having a trained workforce."

Within the core mission of lower-division academic preparation, there is also a threat in the elimination of elective courses. In this respect, policymakers who look to the community colleges to serve an increasing share of students who are eligible for UC and CSU should not fool themselves into thinking that with the current levels of state subsidy, the community colleges can be a lower-cost substitute for a UC or CSU education. Under current conditions, the community colleges will not be a place for students to sample a broad range of liberal arts classes as they hone their interests for the future. Academic classes will be limited to a sequence of required courses for transfer to various majors. Electives will almost certainly not be a major part of a student's experience.

3. The Tradeoff Between Access and Quality

The tradeoff between access and quality is a hugely important issue because the counties we studied for the most part entered these challenging times with college participation rates well below average or acceptable levels. Access is critically important in these areas and, in recognition of this, all of the colleges we studied have given access a higher priority than quality. While this is understandable, there is every reason for concern about diminished quality as we look ahead. The students who attend the community colleges, and especially the colleges in these counties, need personalized attention. They cannot be expected to prosper in large classes in institutions where it is difficult to get an appointment with faculty

Officials Interviewed

California Student Aid Commission

DIANA FUENTES-MICHEL

Director

Chancellor's Office

PATRICK PERRY

Vice Chancellor for Research and Information Systems

ROBERT TURNAGE

Vice Chancellor for Fiscal Policy

MARY GILL

Interim Vice Chancellor for Governmental Relations

Sacramento County

Los Rios Community College District

BRICE HARRIS

*Chancellor
District Office*

SKIP DAVIES

*Deputy Chancellor
District Office*

JON SHARPE

*Vice Chancellor for Finance and Administration
District Office*

FRANCISCO RODRIGUEZ

*President
Cosumnes River College*

MARIE SMITH

*President
American River College*

ROBERT HARRIS

*President
Sacramento City College*

Los Angeles County

Los Angeles City Community College District

RAUL CARDOZA

*Acting Academic Vice President
Los Angeles Trade Tech College*

BILL FARMER

*Academic Vice President
Los Angeles Mission College*

TOM OLIVER

*Academic Vice President
Pierce College*

JACKIE IRELAND

*Vice President for Academic Affairs
Los Angeles City College*

and staff and where support services are limited. No one wants to talk about the impact on quality resulting from a single-minded pursuit of access because it involves making choices about whom to serve—a choice that is antithetical to the community college movement. Nevertheless, we believe that circumstances have already propelled the colleges to a point where access and quality have both been diminished, as documented in these interviews. Either subsidy levels will have to increase dramatically or serious, first-time discussions about who is most deserving of, or most able to benefit from, a community college education will need to occur.

A related and equally difficult issue concerns the way in which the state funds higher education. The enrollment model (FTE students), as virtually everyone agrees, creates an incentive for access but not for completion or success. In addition to the belief in the value of access (for without access there can surely be no success), colleges pursue access in part because of the fiscal incentive. If we truly engage the access and quality tradeoff, we will also have to look at funding incentives.

4. Some Opportunities

The actions and consequences of the last year, as documented in these interviews, are not without positive elements. It is always healthy for institutions to set and review their priorities, and this has occurred across the districts we studied. Many of the officials with whom we spoke acknowledged some benefits of having had these discussions. Additionally, it is commonplace in academia for new programs to be added without older, lower-priority programs being eliminated. Many districts are now putting program discontinuation procedures into practice to deal with low-priority, weak, or outmoded programs. In addition to setting programmatic priorities, districts are having to consider efficiency strategies and may be able to implement some new strategies that increase efficiency without diminishing quality. One college reported that more faculty are showing an interest in teaching through distance education and are exploring new ways to package instructional materials to improve instructional efficiencies.

Other positive elements may come from the need for both colleges and students to be more purposeful about the courses offered and taken. Some officials noted that they are indeed being more careful about class scheduling and sequencing. Almost all respondents noted that students (those who have gained access) are being more purposeful about the classes they select and their performance in class. More students are planning ahead and registering early. As noted earlier, students may be more serious about completing the courses they enroll in for fear of not easily gaining entry to the course a second time. The flip side of this is that students who lack the skills or resources to engage in these kinds of purposeful behaviors with respect to college are more likely to be shut out.

It does appear that colleges and districts are seeking out new forms of external partnerships, for example partnering with health care organizations to support high-cost nursing programs. And many are working more closely with UC and CSU and with external granting agencies to secure additional resources.

5. The Redirection Issue

As a final point, we believe that it is important that policymakers understand fully the implications of the decisions they have made about subsidy levels for the three segments of higher education. The degree of disparity between the per-student subsidy at the community colleges and that at the four-year segments is far greater than the per-student subsidy differences across sectors in most other states. The base level of funding per student at the community colleges is deficient by any standard, even without considering the cuts of the last two years. Therefore, when policymakers look to redirect prospective students from UC or CSU to the community colleges on the grounds that it is far cheaper to educate students in that segment, they should understand that by doing so they are not providing an equivalent education, at least as measured by levels of investment.

One additional aspect of the proposed redirection bears noting. If, as many suspect, the community colleges begin to serve a greater proportion of students who are eligible for UC or CSU, then the community colleges' performance, as

Officials Interviewed con't.

Rio Hondo Community College District

TERESA DREYFUSS

*Chief Financial Officer
Rio Hondo College*

VOIZA ARNOLD

*Executive Vice President of Academic Services
Rio Hondo College*

Mt. San Antonio Community College District

AUDREY YAMAGATA-NOJI

*Vice President for Student Services
Mt. San Antonio College*

Orange County

North Orange Community College District

ROD FLEEMAN

*Vice Chancellor for Finance
District Office*

MARJORIE LEWIS

*President
Cypress College*

SUSAN CLIFFORD

*Executive Vice President
Fullerton College*

Rancho Santiago Community College District

JOHN DIDION

*Executive Vice Chancellor for Human Relations
and Educational Services
District Office*

RITA CEPEDA

*President
Santa Ana College*

SARA LUNDQUIST

*Vice President for Student Affairs
Santa Ana College*

MARY HALVORSON

*Vice President for Academic Affairs
Santiago Canyon College*

Coast Community College District

JORGE SANCHEZ

*Director of Institutional Research and Vocational
Education
District Office*

BARBARA HOLLOWELL

*Vice President for Instruction
Coastline College*

Officials Interviewed con't.

San Diego County

San Diego Community College District

KENDRA JEFFCOAT

*Assistant Chancellor for Instructional Services
District Office*

RON MANZONI

*Vice President for Instruction
San Diego City College*

Palomar Community College District

JERRY PATTON

*Vice President for Administration and Finance
Palomar Community College*

San Bernardino County

Chaffey Community College District

DON BERZ

*Vice President for Instruction
Chaffey College*

Riverside County

Riverside Community College District

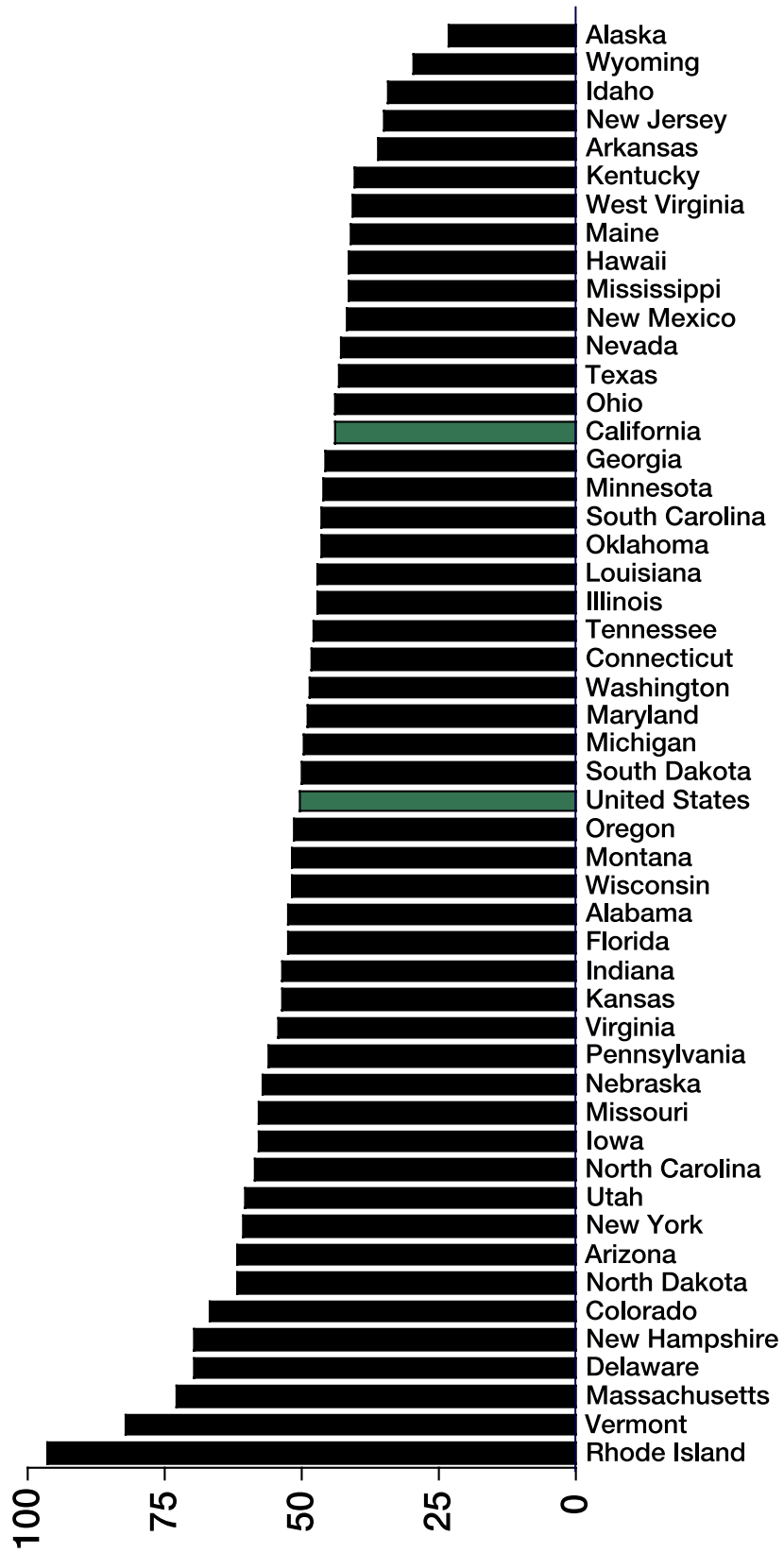
JAMES BUYSSE

*Vice President for Administration and Finance
Riverside Community College*

measured by indicators like transfer rates or retention rates, is likely to improve. Policymakers should recognize this as the byproduct of the changing mix of students, and not as an indication that the traditional community college clientele is being better served. Given the likelihood of continuing fiscal constraints, the governor's proposal to redirect a small portion of students who are eligible for UC or CSU to the community colleges may foretell an official expansion of the mission of the California Community Colleges to serve a greater percentage of the state's better-prepared high school graduates. Accordingly, it will become more important than ever that educators and policymakers have access to good information on the needs, experiences, and outcomes of the variety of students that the community colleges serve through their many missions. It may be that the community colleges are to become even more important than they already are to the future economic, civic, and social health of the state.

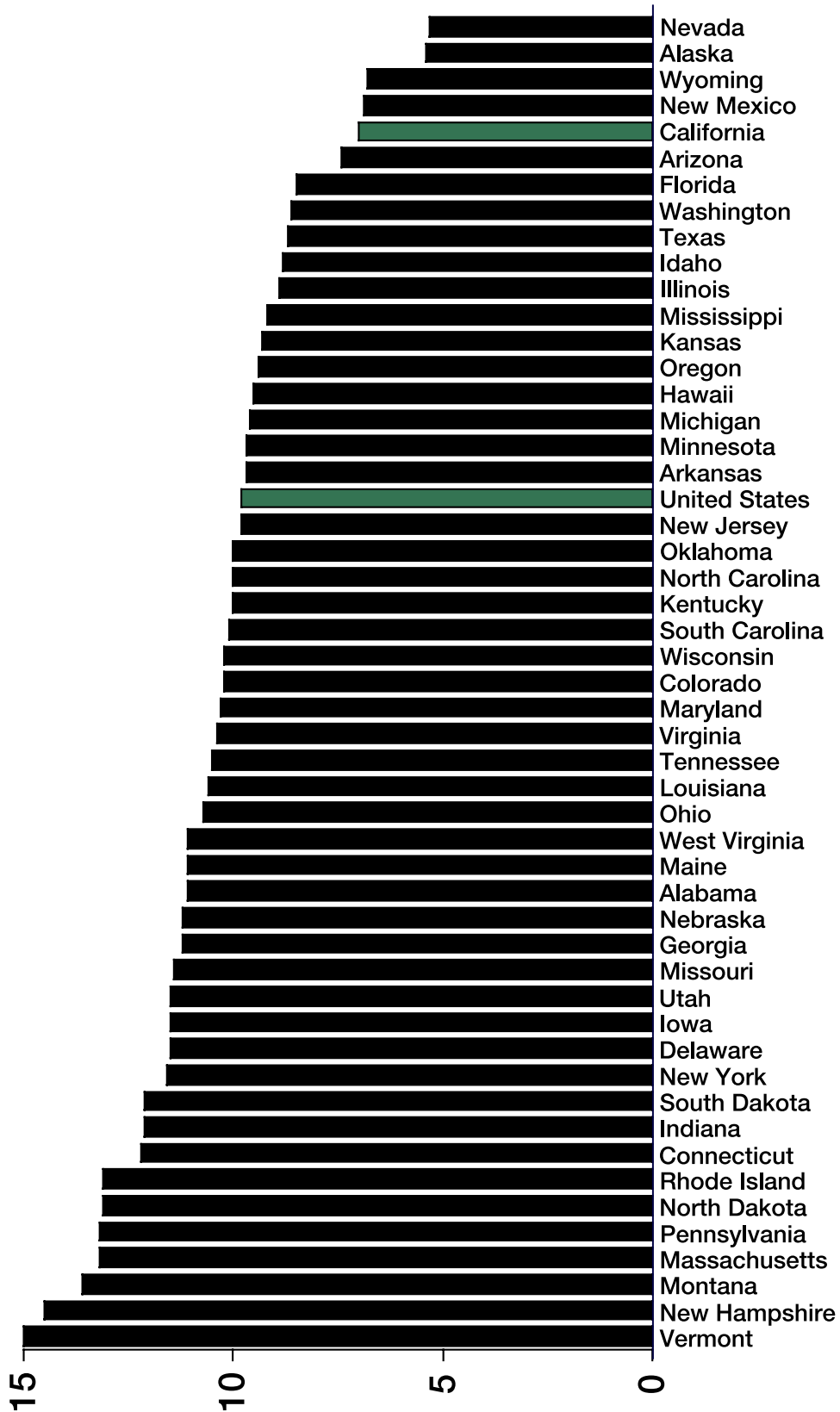
Appendix:
Figures

Figure 1. Bachelor's Degrees Awarded as a Percentage of High School Graduates Six Years Earlier, 2000 (in percent)



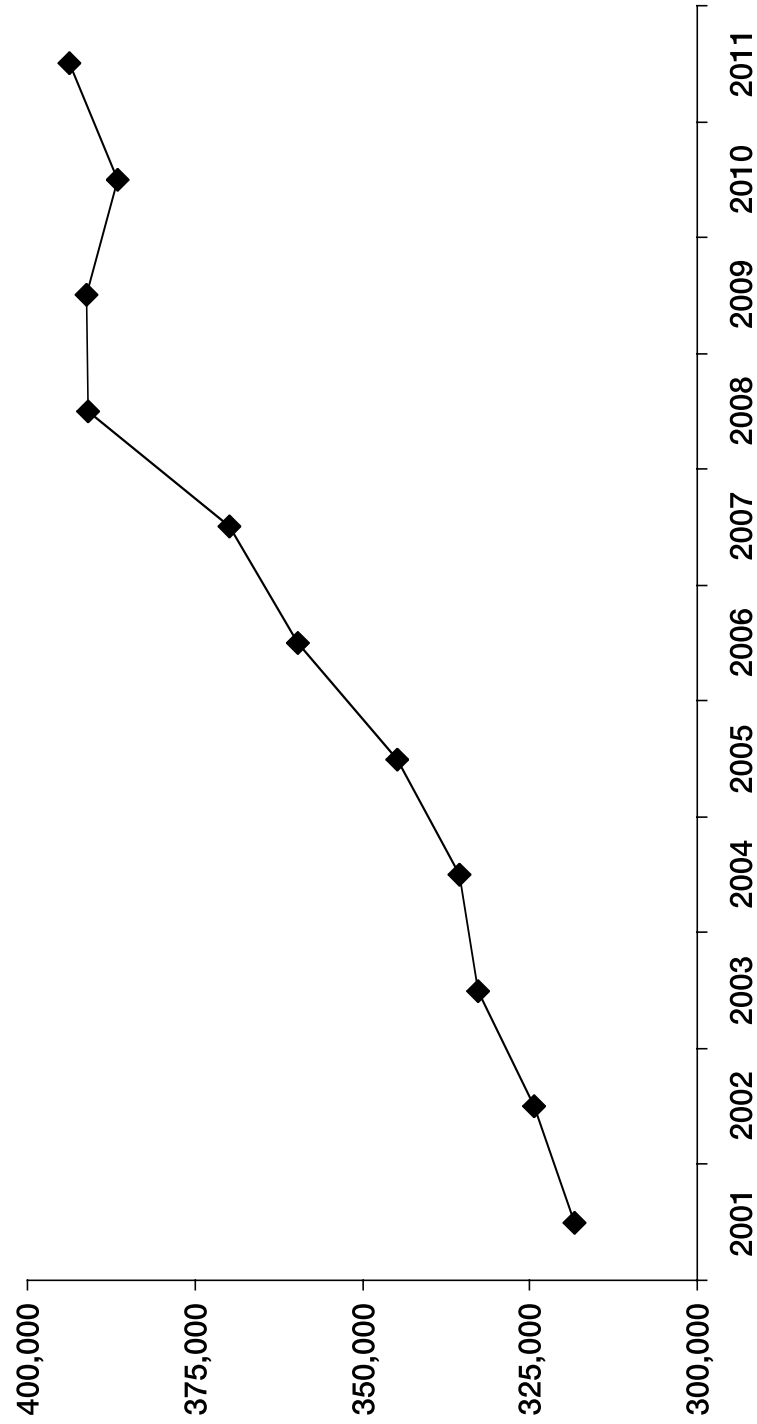
Sources: National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "1999-2000 Completions"; California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

Figure 2. Bachelor's Degrees Awarded per 100 Undergraduates, 2000



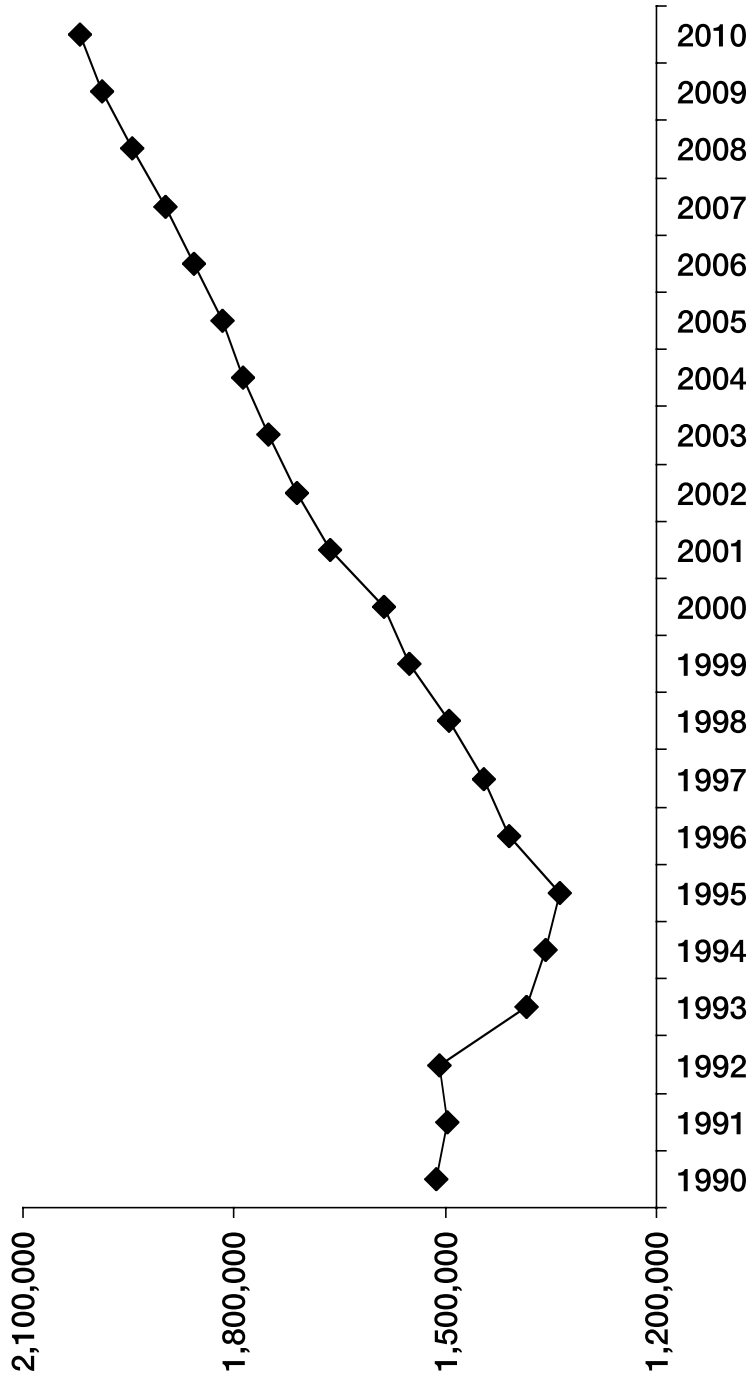
Source: NCES, IPEDS, "1999-2000 Completions, Fall 1999 Enrollments."

Figure 3. Projected Number of California High School Graduates, 2001–2011



Source: California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

Figure 4. California Community College Enrollments, 1990–2010



Note: Numbers for 2001-2010 are projected.
Source: California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

**Figure 5. Projected Change by County in California
Public High School Graduates, by Number Change, 2001–2011**

| County | 2001 Graduates | 2011 Graduates | Number Change 2001–2011 | Percent Change 2001–2011 |
|-----------------|-------------------|-------------------|----------------------------|-----------------------------|
| Los Angeles | 78,334 | 101,431 | 23,097 | 29.5 |
| Orange | 27,650 | 38,582 | 10,932 | 39.5 |
| Riverside | 16,891 | 24,502 | 7,611 | 45.1 |
| San Diego | 26,504 | 33,803 | 7,299 | 27.5 |
| San Bernardino | 18,816 | 24,940 | 6,124 | 32.5 |
| Sacramento | 11,576 | 13,965 | 2,389 | 20.6 |
| Contra Costa | 9,261 | 11,565 | 2,304 | 24.9 |
| Alameda | 11,457 | 13,489 | 2,032 | 17.7 |
| San Joaquin | 5,873 | 7,759 | 1,886 | 32.1 |
| Ventura | 8,224 | 10,003 | 1,779 | 21.6 |
| Kern | 8,236 | 9,907 | 1,671 | 20.3 |
| Placer | 3,628 | 5,170 | 1,542 | 42.5 |
| Fresno | 9,345 | 10,796 | 1,451 | 15.5 |
| Stanislaus | 5,521 | 6,531 | 1,010 | 18.3 |
| Santa Clara | 14,350 | 15,245 | 895 | 6.2 |
| Monterey | 3,534 | 4,313 | 779 | 22.0 |
| Merced | 2,972 | 3,566 | 594 | 20.0 |
| Santa Barbara | 3,677 | 4,262 | 585 | 15.9 |
| Tulare | 4,346 | 4,917 | 571 | 13.1 |
| Yolo | 1,677 | 2,131 | 454 | 27.1 |
| San Mateo | 4,983 | 5,401 | 418 | 8.4 |
| San Benito | 566 | 861 | 295 | 52.1 |
| Sonoma | 4,146 | 4,423 | 277 | 6.7 |
| Solano | 4,213 | 4,484 | 271 | 6.4 |
| Kings | 1,212 | 1,470 | 258 | 21.3 |
| Santa Cruz | 2,305 | 2,502 | 197 | 8.5 |
| Sutter | 947 | 1,108 | 161 | 17.0 |
| San Francisco | 3,515 | 3,643 | 128 | 3.6 |
| Marin | 1,880 | 2,005 | 125 | 6.6 |
| Napa | 1,180 | 1,304 | 124 | 10.5 |
| Imperial | 1,880 | 1,998 | 118 | 6.3 |
| Madera | 1,282 | 1,343 | 61 | 4.8 |
| Tehama | 576 | 619 | 43 | 7.5 |
| Mono | 103 | 137 | 34 | 33.0 |
| Calaveras | 488 | 505 | 17 | 3.5 |
| Modoc | 164 | 175 | 11 | 6.7 |
| San Luis Obispo | 2,314 | 2,318 | 4 | 0.2 |
| Sierra | 41 | 45 | 4 | 9.8 |
| Alpine | 6 | 2 | -4 | -66.7 |
| Lake | 530 | 522 | -8 | -1.5 |
| Mariposa | 173 | 149 | -24 | -13.9 |
| Amador | 361 | 332 | -29 | -8.0 |
| Del Norte | 273 | 238 | -35 | -12.8 |
| Colusa | 314 | 273 | -41 | -13.1 |

| County | 2001 Graduates | 2011 Graduates | Number Change 2001–2011 | Percent Change 2001–2011 |
|-------------------|---------------------------|---------------------------|------------------------------------|-------------------------------------|
| Inyo | 244 | 203 | –41 | –16.8 |
| Plumas | 252 | 209 | –43 | –17.1 |
| El Dorado | 1,777 | 1,732 | –45 | –2.5 |
| Glenn | 395 | 337 | –58 | –14.7 |
| Trinity | 179 | 112 | –67 | –37.4 |
| Lassen | 353 | 280 | –73 | –20.7 |
| Yuba | 678 | 540 | –138 | –20.4 |
| Tuolumne | 573 | 429 | –144 | –25.1 |
| Humboldt | 1,379 | 1,201 | –178 | –12.9 |
| Mendocino | 1,066 | 858 | –208 | –19.5 |
| Siskiyou | 566 | 340 | –226 | –39.9 |
| Shasta | 2,009 | 1,768 | –241 | –12.0 |
| Butte | 2,071 | 1,824 | –247 | –11.9 |
| Nevada | 1,433 | 1,057 | –376 | –26.2 |
| California | 318,299 | 393,624 | 75,325 | 23.7 |

Note: Projections exclude California Youth Authority and state special schools.

Sources: Based on data from California Department of Finance, Demographic Research Unit, www.dof.ca.gov; California Department of Education, Education Demographics Unit, "California K–12 Public Enrollment and High School Graduate Projections by County, 2001 Series."

**Figure 6. Enrollment Projections for California
Community College Districts, by Percentage Change, 2001–2010**

| District | 2001 Enrollment | 2010 Enrollment | Number Change 2001–2010 | Percent Change 2001–2010 |
|--------------------|--------------------|--------------------|----------------------------|-----------------------------|
| West Kern | 10,507 | 17,329 | 6,822 | 64.9% |
| Santa Clarita | 12,034 | 18,723 | 6,689 | 55.6% |
| Mt. San Jacinto | 12,192 | 17,605 | 5,413 | 44.4% |
| Desert | 9,512 | 13,466 | 3,954 | 41.6% |
| Barstow | 3,169 | 4,462 | 1,293 | 40.8% |
| Hartnell | 9,846 | 13,793 | 3,947 | 40.1% |
| West Hills | 4,795 | 6,662 | 1,867 | 38.9% |
| Butte | 15,694 | 21,228 | 5,534 | 35.3% |
| Redwoods | 7,588 | 10,207 | 2,619 | 34.5% |
| Yuba | 11,275 | 15,124 | 3,849 | 34.1% |
| Rio Hondo | 21,112 | 28,007 | 6,895 | 32.7% |
| Chaffey | 18,132 | 23,960 | 5,828 | 32.1% |
| Merced | 15,286 | 20,193 | 4,907 | 32.1% |
| Imperial | 7,276 | 9,574 | 2,298 | 31.6% |
| Victor Valley | 13,651 | 17,930 | 4,279 | 31.3% |
| Palo Verde | 3,563 | 4,679 | 1,116 | 31.3% |
| Yosemite | 21,504 | 27,968 | 6,464 | 30.1% |
| North Orange | 61,085 | 79,406 | 18,321 | 30.0% |
| San Luis Obispo | 10,278 | 13,357 | 3,079 | 30.0% |
| Mendocino | 5,098 | 6,619 | 1,521 | 29.8% |
| Sierra | 18,513 | 24,001 | 5,488 | 29.6% |
| Lassen | 3,213 | 4,163 | 950 | 29.6% |
| Lake Tahoe | 3,067 | 3,963 | 896 | 29.2% |
| Los Rios | 72,226 | 92,691 | 20,465 | 28.3% |
| Riverside | 31,611 | 40,474 | 8,863 | 28.0% |
| Compton | 8,629 | 11,040 | 2,411 | 27.9% |
| Copper Mountain | 2,418 | 3,076 | 658 | 27.2% |
| Los Angeles | 147,962 | 188,168 | 40,206 | 27.2% |
| Rancho Santiago | 66,756 | 83,901 | 17,145 | 25.7% |
| San Jose–Evergreen | 24,296 | 30,272 | 5,976 | 24.6% |
| Sonoma | 33,845 | 42,076 | 8,231 | 24.3% |
| Mira Costa | 12,288 | 15,265 | 2,977 | 24.2% |
| State Center | 31,596 | 39,227 | 7,631 | 24.2% |
| South Orange | 34,979 | 43,424 | 8,445 | 24.1% |
| Kern | 25,573 | 31,508 | 5,935 | 23.2% |
| Santa Barbara | 25,954 | 31,951 | 5,997 | 23.1% |
| Palomar | 30,775 | 37,748 | 6,973 | 22.7% |
| Sequoias | 11,537 | 14,113 | 2,576 | 22.3% |
| Solano | 10,593 | 12,911 | 2,318 | 21.9% |
| Cabrillo | 14,297 | 17,402 | 3,105 | 21.7% |
| San Joaquin Delta | 20,199 | 24,450 | 4,251 | 21.0% |
| Monterey | 17,244 | 20,700 | 3,456 | 20.0% |
| Grossmont–Cuyamaca | 27,182 | 32,618 | 5,436 | 20.0% |
| Southwestern | 19,172 | 22,984 | 3,812 | 19.9% |

| District | 2001 Enrollment | 2010 Enrollment | Number Change 2001–2010 | Percent Change 2001–2010 |
|--------------------|------------------|------------------|-------------------------|--------------------------|
| Coast | 48,144 | 57,492 | 9,348 | 19.4% |
| Mt. San Antonio | 35,972 | 42,770 | 6,798 | 18.9% |
| San Francisco | 62,517 | 74,205 | 11,688 | 18.7% |
| Feather River | 1,149 | 1,357 | 208 | 18.1% |
| Antelope Valley | 11,442 | 13,508 | 2,066 | 18.1% |
| Cerritos | 24,071 | 28,355 | 4,284 | 17.8% |
| Glendale | 24,874 | 29,293 | 4,419 | 17.8% |
| Siskiyou | 2,818 | 3,317 | 499 | 17.7% |
| Allan Hancock | 14,314 | 16,831 | 2,517 | 17.6% |
| Peralta | 29,382 | 34,470 | 5,088 | 17.3% |
| West Valley | 26,193 | 30,716 | 4,523 | 17.3% |
| Foothill–De Anza | 44,676 | 52,368 | 7,692 | 17.2% |
| Chabot–Las Positas | 21,600 | 25,170 | 3,570 | 16.5% |
| San Bernardino | 18,793 | 21,861 | 3,068 | 16.3% |
| Ventura | 35,668 | 41,445 | 5,777 | 16.2% |
| Contra Costa | 39,885 | 46,268 | 6,383 | 16.0% |
| San Diego | 81,706 | 94,779 | 13,073 | 16.0% |
| Shasta | 10,904 | 12,567 | 1,663 | 15.2% |
| Santa Monica | 32,468 | 37,337 | 4,869 | 15.0% |
| Napa | 9,079 | 10,423 | 1,344 | 14.8% |
| Fremont–Newark | 10,210 | 11,648 | 1,438 | 14.1% |
| Long Beach | 24,387 | 27,654 | 3,267 | 13.4% |
| El Camino | 26,034 | 29,218 | 3,184 | 12.2% |
| Gavilan | 6,040 | 6,761 | 721 | 11.9% |
| Citrus | 11,744 | 13,074 | 1,330 | 11.3% |
| Pasadena | 25,973 | 28,196 | 2,223 | 8.6% |
| San Mateo | 26,449 | 28,390 | 1,941 | 7.3% |
| Marin | 11,708 | 12,469 | 761 | 6.5% |
| Total | 1,685,723 | 2,070,360 | 384,638 | 22.8% |

Source: California Community Colleges, Chancellor's Office, www.cccco.edu.

**Figure 7. Enrollment Projections for California
Community College Districts, by Number Change, 2001–2010**

| District | 2001 Enrollment | 2010 Enrollment | Number Change 2001–2010 | Percent Change 2001–2010 |
|------------------------|--------------------|--------------------|----------------------------|-----------------------------|
| Los Angeles | 147,962 | 188,168 | 40,206 | 27.2% |
| Los Rios | 72,226 | 92,691 | 20,465 | 28.3% |
| North Orange | 61,085 | 79,406 | 18,321 | 30.0% |
| Rancho Santiago | 66,756 | 83,901 | 17,145 | 25.7% |
| San Diego | 81,706 | 94,779 | 13,073 | 16.0% |
| San Francisco Coast | 62,517 | 74,205 | 11,688 | 18.7% |
| Riverside | 48,144 | 57,492 | 9,348 | 19.4% |
| South Orange | 31,611 | 40,474 | 8,863 | 28.0% |
| Sonoma | 34,979 | 43,424 | 8,445 | 24.1% |
| Foothill–De Anza | 33,845 | 42,076 | 8,231 | 24.3% |
| State Center | 44,676 | 52,368 | 7,692 | 17.2% |
| Palomar | 31,596 | 39,227 | 7,631 | 24.2% |
| Rio Hondo | 30,775 | 37,748 | 6,973 | 22.7% |
| West Kern | 21,112 | 28,007 | 6,895 | 32.7% |
| Mt. San Antonio | 10,507 | 17,329 | 6,822 | 64.9% |
| Santa Clarita | 35,972 | 42,770 | 6,798 | 18.9% |
| Yosemite | 12,034 | 18,723 | 6,689 | 55.6% |
| Contra Costa | 21,504 | 27,968 | 6,464 | 30.1% |
| Santa Barbara | 39,885 | 46,268 | 6,383 | 16.0% |
| San Jose–Evergreen | 25,954 | 31,951 | 5,997 | 23.1% |
| Kern | 24,296 | 30,272 | 5,976 | 24.6% |
| Chaffey | 25,573 | 31,508 | 5,935 | 23.2% |
| Ventura | 18,132 | 23,960 | 5,828 | 32.1% |
| Butte | 35,668 | 41,445 | 5,777 | 16.2% |
| Sierra | 15,694 | 21,228 | 5,534 | 35.3% |
| Grossmont–Cuyamaca | 18,513 | 24,001 | 5,488 | 29.6% |
| Mt. San Jacinto | 27,182 | 32,618 | 5,436 | 20.0% |
| Peralta | 12,192 | 17,605 | 5,413 | 44.4% |
| Merced | 29,382 | 34,470 | 5,088 | 17.3% |
| Santa Monica | 15,286 | 20,193 | 4,907 | 32.1% |
| West Valley | 32,468 | 37,337 | 4,869 | 15.0% |
| Glendale | 26,193 | 30,716 | 4,523 | 17.3% |
| Cerritos | 24,874 | 29,293 | 4,419 | 17.8% |
| Victor Valley | 24,071 | 28,355 | 4,284 | 17.8% |
| San Joaquin Delta | 13,651 | 17,930 | 4,279 | 31.3% |
| Desert | 20,199 | 24,450 | 4,251 | 21.0% |
| Hartnell | 9,512 | 13,466 | 3,954 | 41.6% |
| Yuba | 9,846 | 13,793 | 3,947 | 40.1% |
| Southwestern | 11,275 | 15,124 | 3,849 | 34.1% |
| Chabot–Las Positas | 19,172 | 22,984 | 3,812 | 19.9% |
| Monterey | 21,600 | 25,170 | 3,570 | 16.5% |
| Long Beach | 17,244 | 20,700 | 3,456 | 20.0% |
| El Camino | 24,387 | 27,654 | 3,267 | 13.4% |
| | 26,034 | 29,218 | 3,184 | 12.2% |

| District | 2001 Enrollment | 2010 Enrollment | Number Change 2001–2010 | Percent Change 2001–2010 |
|-----------------|------------------|------------------|-------------------------|--------------------------|
| Cabrillo | 14,297 | 17,402 | 3,105 | 21.7% |
| San Luis Obispo | 10,278 | 13,357 | 3,079 | 30.0% |
| San Bernardino | 18,793 | 21,861 | 3,068 | 16.3% |
| Mira Costa | 12,288 | 15,265 | 2,977 | 24.2% |
| Redwoods | 7,588 | 10,207 | 2,619 | 34.5% |
| Sequoias | 11,537 | 14,113 | 2,576 | 22.3% |
| Allan Hancock | 14,314 | 16,831 | 2,517 | 17.6% |
| Compton | 8,629 | 11,040 | 2,411 | 27.9% |
| Solano | 10,593 | 12,911 | 2,318 | 21.9% |
| Imperial | 7,276 | 9,574 | 2,298 | 31.6% |
| Pasadena | 25,973 | 28,196 | 2,223 | 8.6% |
| Antelope Valley | 11,442 | 13,508 | 2,066 | 18.1% |
| San Mateo | 26,449 | 28,390 | 1,941 | 7.3% |
| West Hills | 4,795 | 6,662 | 1,867 | 38.9% |
| Shasta | 10,904 | 12,567 | 1,663 | 15.2% |
| Mendocino | 5,098 | 6,619 | 1,521 | 29.8% |
| Fremont–Newark | 10,210 | 11,648 | 1,438 | 14.1% |
| Napa | 9,079 | 10,423 | 1,344 | 14.8% |
| Citrus | 11,744 | 13,074 | 1,330 | 11.3% |
| Barstow | 3,169 | 4,462 | 1,293 | 40.8% |
| Palo Verde | 3,563 | 4,679 | 1,116 | 31.3% |
| Lassen | 3,213 | 4,163 | 950 | 29.6% |
| Lake Tahoe | 3,067 | 3,963 | 896 | 29.2% |
| Marin | 11,708 | 12,469 | 761 | 6.5% |
| Gavilan | 6,040 | 6,761 | 721 | 11.9% |
| Copper Mountain | 2,418 | 3,076 | 658 | 27.2% |
| Siskiyou | 2,818 | 3,317 | 499 | 17.7% |
| Feather River | 1,149 | 1,357 | 208 | 18.1% |
| Total | 1,685,723 | 2,070,360 | 384,638 | 22.8% |

Source: California Community Colleges, Chancellor's Office, www.cccco.edu.

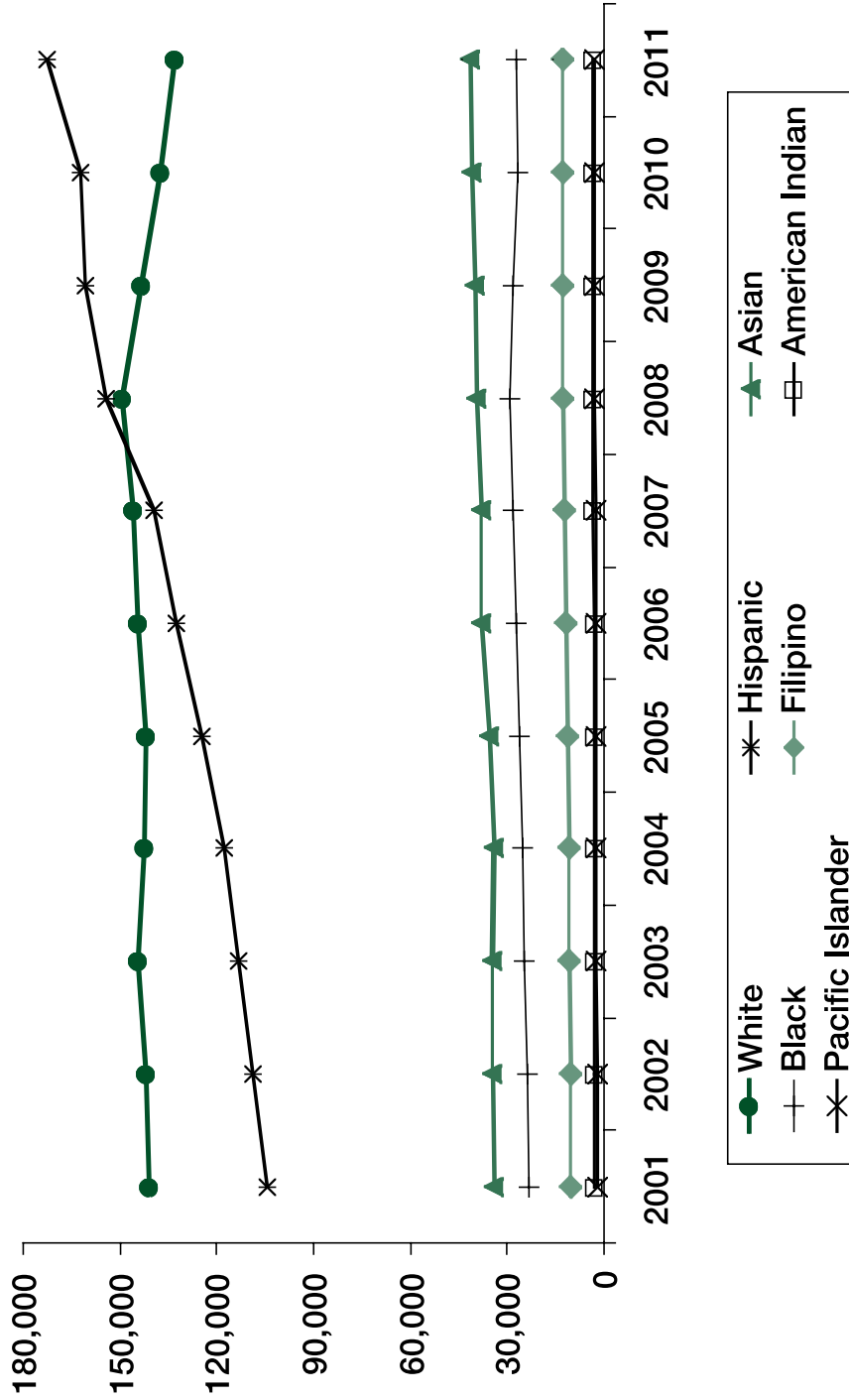
Figure 8. Projected Change in 18- to 19-Year-Old Population, by Total Change, 2000-2010

| County | Total 2000 | Total Projected 2010 | Total Change 2000-2010 |
|-----------------|-------------------|-----------------------------|-------------------------------|
| Los Angeles | 249,049 | 383,340 | 134,291 |
| Orange | 68,569 | 108,487 | 39,918 |
| San Diego | 90,589 | 126,013 | 35,424 |
| Riverside | 45,560 | 69,067 | 23,507 |
| San Bernardino | 54,026 | 77,477 | 23,451 |
| Santa Clara | 42,561 | 60,795 | 18,234 |
| Alameda | 36,634 | 51,160 | 14,526 |
| Sacramento | 34,234 | 45,394 | 11,160 |
| Kern | 21,607 | 29,759 | 8,152 |
| Fresno | 26,407 | 34,385 | 7,978 |
| San Francisco | 13,833 | 20,758 | 6,925 |
| San Mateo | 17,184 | 23,644 | 6,460 |
| Ventura | 21,176 | 26,957 | 5,781 |
| San Joaquin | 18,391 | 23,970 | 5,579 |
| Monterey | 11,843 | 17,390 | 5,547 |
| Contra Costa | 24,802 | 29,892 | 5,090 |
| Santa Barbara | 14,613 | 19,403 | 4,790 |
| Stanislaus | 14,719 | 19,283 | 4,564 |
| Santa Cruz | 7,641 | 10,786 | 3,145 |
| Imperial | 5,553 | 8,685 | 3,132 |
| Tulare | 13,071 | 16,162 | 3,091 |
| Solano | 12,098 | 15,037 | 2,939 |
| Sonoma | 12,453 | 15,003 | 2,550 |
| Placer | 7,294 | 9,492 | 2,198 |
| Merced | 7,497 | 9,444 | 1,947 |
| San Luis Obispo | 10,545 | 12,481 | 1,936 |
| Madera | 3,919 | 5,555 | 1,636 |
| Yolo | 8,566 | 9,982 | 1,416 |
| Kings | 3,838 | 5,169 | 1,331 |
| Marin | 5,140 | 6,466 | 1,326 |
| El Dorado | 4,828 | 5,985 | 1,157 |
| Butte | 5,842 | 6,935 | 1,093 |
| Shasta | 5,254 | 6,024 | 770 |
| Sutter | 2,395 | 3,154 | 759 |
| Yuba | 2,079 | 2,599 | 520 |
| San Benito | 1,556 | 2,006 | 450 |
| Lake | 1,682 | 2,127 | 445 |
| Napa | 3,377 | 3,728 | 351 |
| Glenn | 1,005 | 1,237 | 232 |
| Calaveras | 1,202 | 1,425 | 223 |
| Colusa | 727 | 947 | 220 |
| Tehama | 1,734 | 1,947 | 213 |
| Mariposa | 442 | 535 | 93 |
| Nevada | 2,819 | 2,893 | 74 |

| County | Total 2000 | Total Projected 2010 | Total Change 2000–2010 |
|-------------------|-------------------|---------------------------------|-----------------------------------|
| Tuolumne | 1,489 | 1,529 | 40 |
| Mono | 308 | 334 | 26 |
| Del Norte | 975 | 986 | 11 |
| Alpine | 36 | 34 | -2 |
| Inyo | 516 | 497 | -19 |
| Lassen | 1,161 | 1,140 | -21 |
| Mendocino | 2,836 | 2,814 | -22 |
| Sierra | 120 | 55 | -65 |
| Amador | 872 | 793 | -79 |
| Trinity | 434 | 344 | -90 |
| Modoc | 338 | 244 | -94 |
| Plumas | 614 | 474 | -140 |
| Humboldt | 4,006 | 3,675 | -331 |
| Siskiyou | 1,464 | 1,099 | -365 |
| California | 953,523 | 1,346,996 | 393,473 |

Source: California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

Figure 9. Projected Number of California High School Graduates, by Ethnic Group, 2001–2011



Source: California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

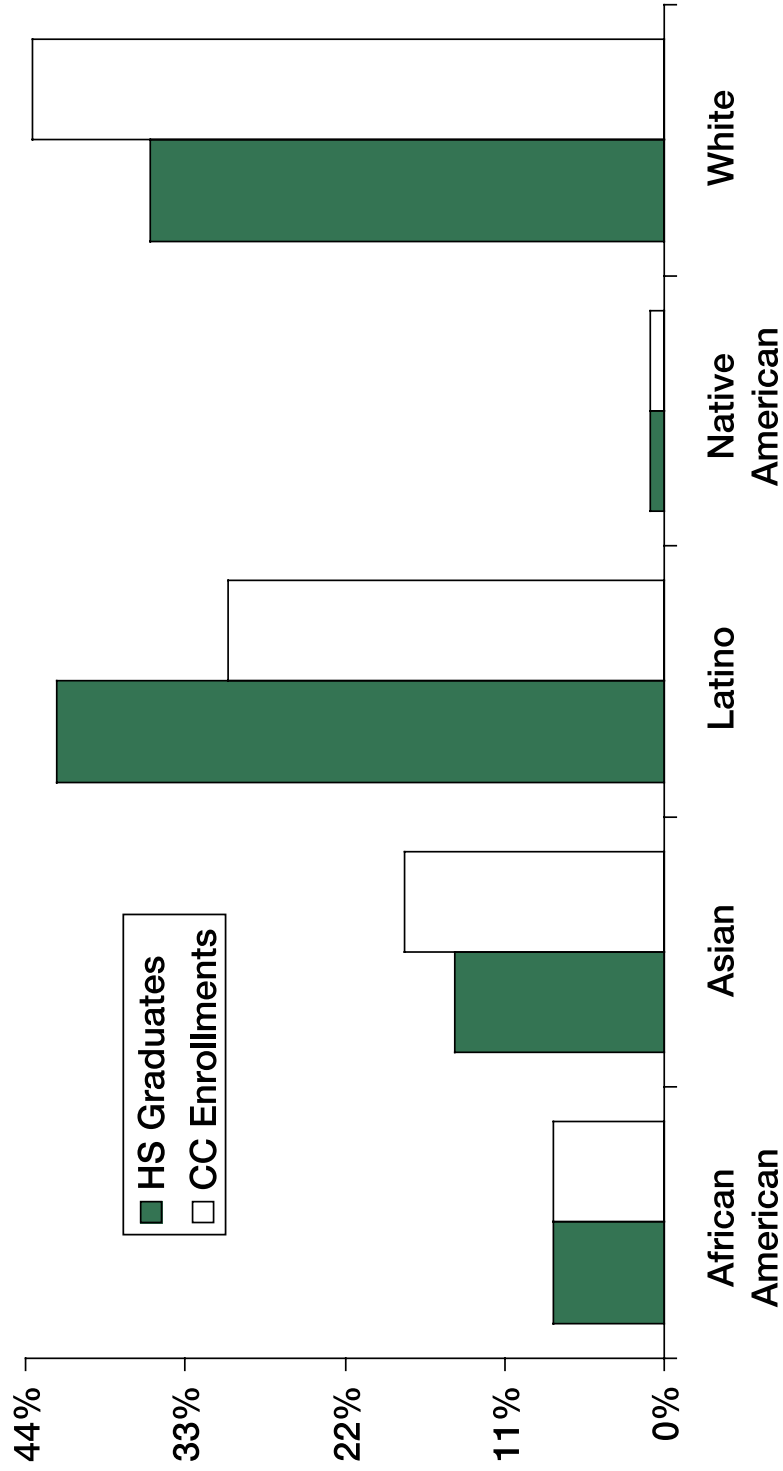
**Figure 10. Projected Change in Hispanic
18- to 19-Year-Old Population, by Total Change, 2000-2010**

| County | Total 2000 | Total Projected 2010 | Total Change 2000-2010 |
|-----------------|------------|-------------------------|---------------------------|
| Los Angeles | 132,278 | 234,156 | 101,878 |
| Orange | 23,113 | 46,279 | 23,166 |
| San Diego | 22,209 | 42,060 | 19,851 |
| San Bernardino | 19,060 | 32,946 | 13,886 |
| Riverside | 15,963 | 29,480 | 13,517 |
| Santa Clara | 12,664 | 19,718 | 7,054 |
| Kern | 7,819 | 13,352 | 5,533 |
| Fresno | 11,300 | 16,230 | 4,930 |
| Ventura | 7,372 | 11,663 | 4,291 |
| Monterey | 5,623 | 9,538 | 3,915 |
| Santa Barbara | 4,024 | 7,836 | 3,812 |
| Alameda | 8,091 | 11,578 | 3,487 |
| Imperial | 4,374 | 7,128 | 2,754 |
| San Mateo | 5,045 | 7,693 | 2,648 |
| Tulare | 6,459 | 9,047 | 2,588 |
| San Joaquin | 4,940 | 7,254 | 2,314 |
| Sacramento | 5,253 | 7,472 | 2,219 |
| Santa Cruz | 1,910 | 4,030 | 2,120 |
| Stanislaus | 4,225 | 6,330 | 2,105 |
| San Francisco | 2,948 | 4,784 | 1,836 |
| Contra Costa | 4,048 | 5,679 | 1,631 |
| Merced | 2,869 | 4,206 | 1,337 |
| Madera | 1,629 | 2,935 | 1,306 |
| Sonoma | 1,944 | 3,234 | 1,290 |
| Solano | 1,972 | 2,725 | 753 |
| Kings | 1,577 | 2,324 | 747 |
| San Luis Obispo | 1,683 | 2,336 | 653 |
| Marin | 710 | 1,275 | 565 |
| Yolo | 1,420 | 1,985 | 565 |
| Napa | 690 | 1,221 | 531 |
| El Dorado | 413 | 778 | 365 |
| Placer | 729 | 1,069 | 340 |
| Butte | 655 | 923 | 268 |
| Colusa | 345 | 599 | 254 |
| Sutter | 543 | 776 | 233 |
| Mendocino | 470 | 698 | 228 |
| San Benito | 774 | 962 | 188 |
| Glenn | 305 | 478 | 173 |
| Tehama | 298 | 445 | 147 |
| Shasta | 296 | 416 | 120 |
| Lake | 194 | 266 | 72 |
| Lassen | 205 | 277 | 72 |
| Calaveras | 118 | 175 | 57 |
| Mono | 45 | 100 | 55 |

| County | Total 2000 | Total Projected 2010 | Total Change 2000–2010 |
|-------------------|-------------------|---------------------------------|-----------------------------------|
| Nevada | 178 | 232 | 54 |
| Yuba | 348 | 387 | 39 |
| Del Norte | 129 | 159 | 30 |
| Tuolumne | 109 | 135 | 26 |
| Inyo | 71 | 95 | 24 |
| Modoc | 34 | 57 | 23 |
| Humboldt | 261 | 277 | 16 |
| Plumas | 39 | 54 | 15 |
| Mariposa | 29 | 32 | 3 |
| Sierra | 4 | 3 | -1 |
| Trinity | 15 | 14 | -1 |
| Alpine | 4 | 0 | -4 |
| Amador | 95 | 74 | -21 |
| Siskiyou | 128 | 106 | -22 |
| California | 330,046 | 566,081 | 236,035 |

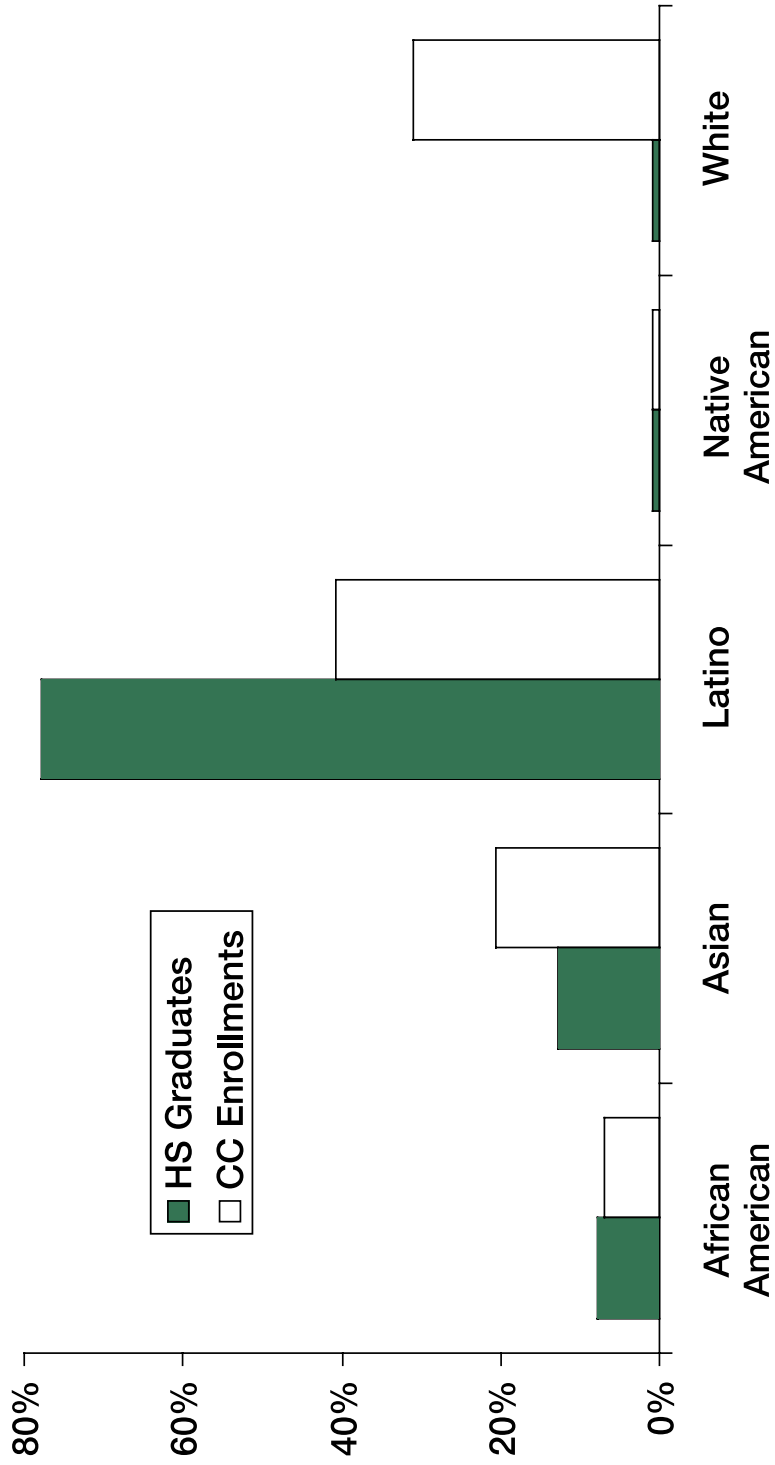
Source: California Department of Finance, Demographic Research Unit, www.dof.ca.gov.

Figure 11. Projected Shares of High School Graduates and Community College Enrollments, by Ethnicity, 2010



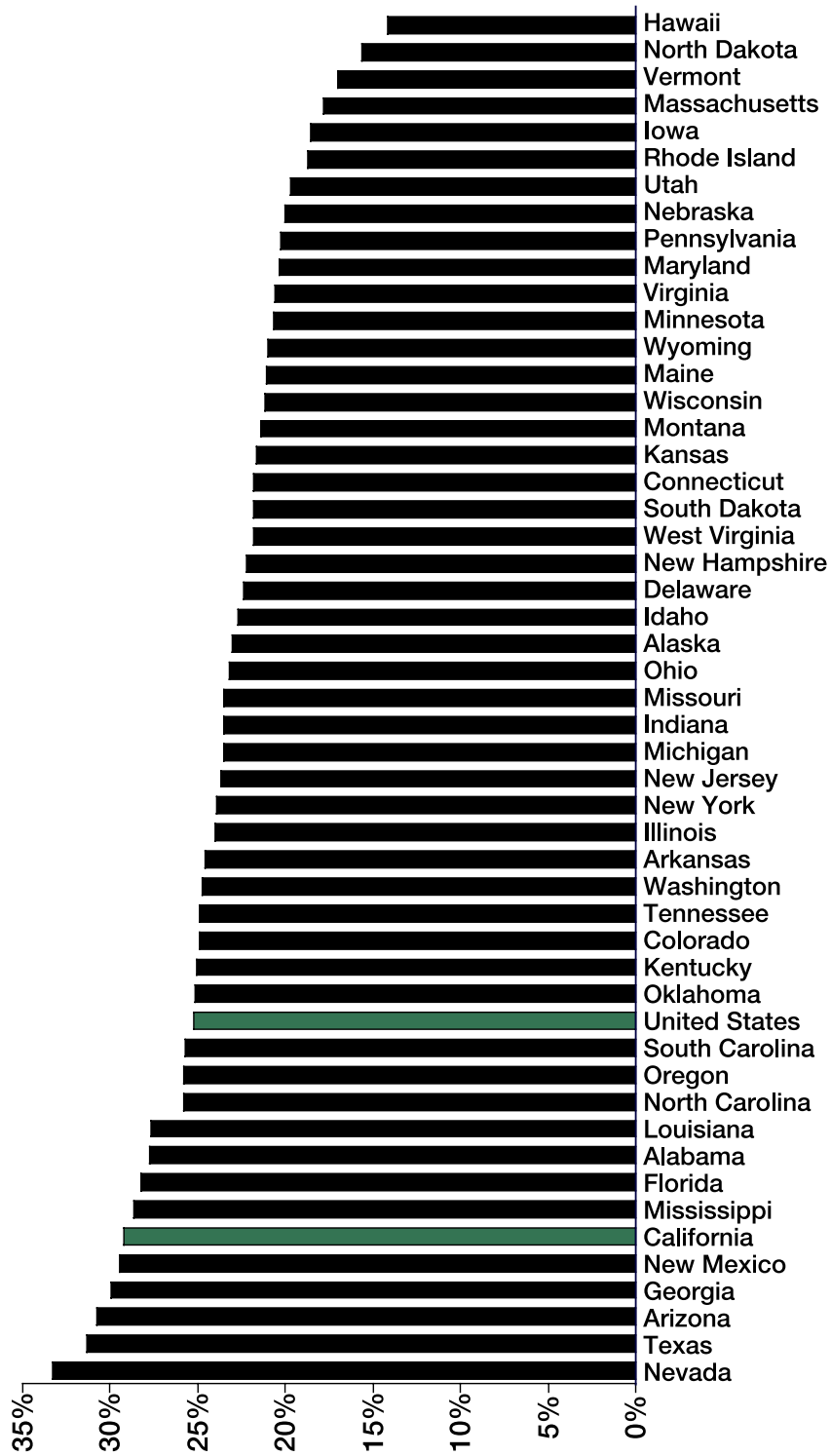
Sources: California Department of Finance, Demographic Research Unit, www.dof.ca.gov; California Postsecondary Education Commission (CPEC), www.cpec.ca.gov.

Figure 12. Projected Increases in High School Graduates and Community College Enrollments, by Ethnicity, 1998–2010



Sources: California Department of Finance, Demographic Research Unit, www.dof.ca.gov; CPEC, www.cpec.ca.gov.

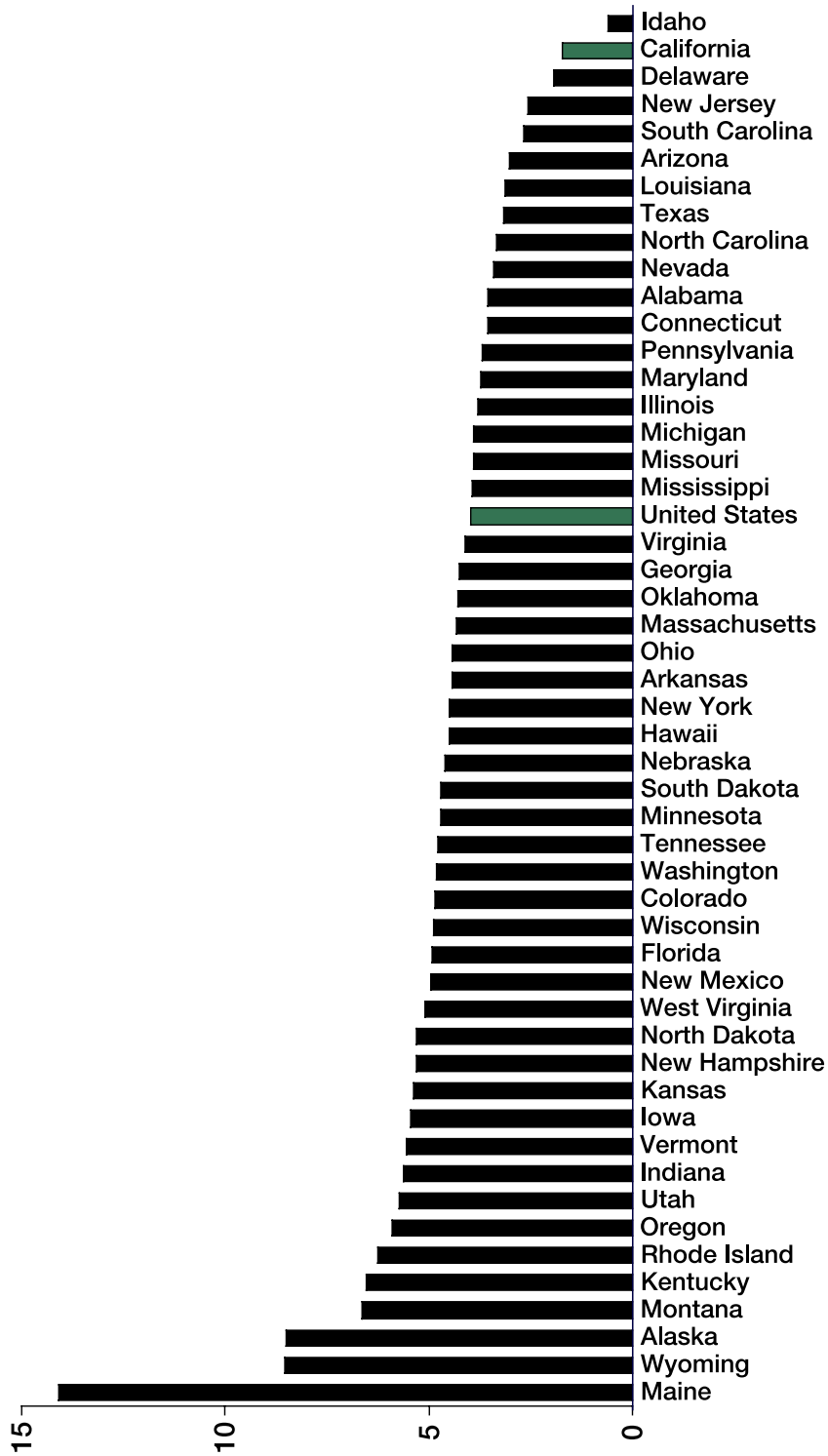
Figure 13. Percentage of 18- to 24-Year-Olds with No High School Diploma, 2000



Notes: In 2000, the number of California 18- to 24-year-olds was 3,351,285. The number of California 18- to 24-year-olds with no high school diploma was 980,602. The percentage of California 18- to 24-year-olds with no high school diploma was 29%. Nationwide, the percentage of 18- to 24-year-olds with no high school diploma was 25%.

Source: U.S. Bureau of the Census, 2000 Census, www.census.gov.

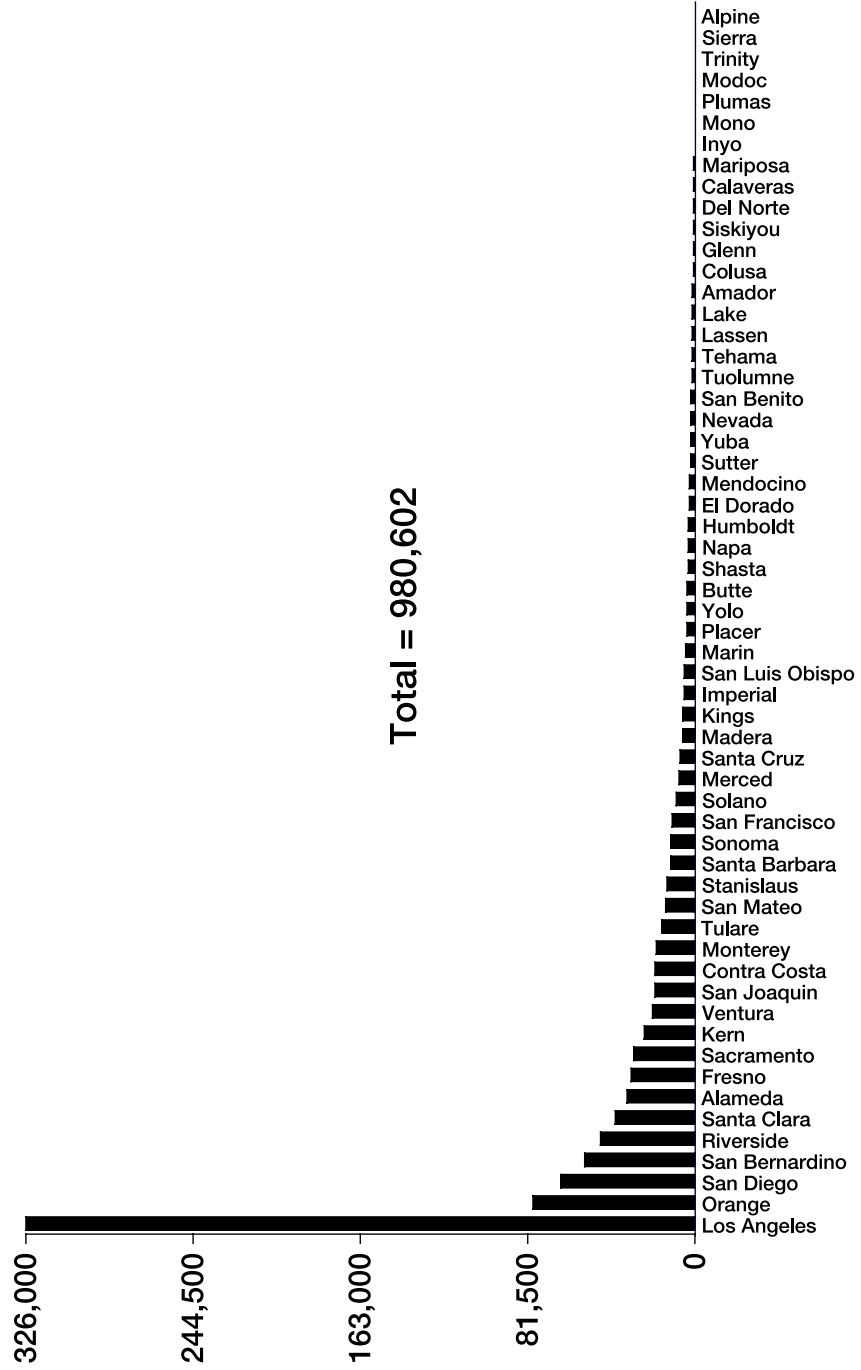
Figure 14. Ratio of GEDs Awarded to Population (18- to 24-Year-Olds) with Less than a High School Diploma, 2000



Notes: In 2000, the number of California 18- to 24-year-olds with no high school diploma was 980,602 (29% of age group). The number of GEDs awarded was 16,949 (less than 2% of age group).

Sources: U.S. Bureau of the Census, 2000 Census, www.census.gov; GED Testing Service.

Figure 15. Number of 18- to 24-Year-Olds with Less than a High School Diploma, 2000



Source: U.S. Bureau of the Census, 2000 Census, www.census.gov.

**Figure 16. Annual Transfers from CCC to CSU,
and from CCC to UC, 1993–94 to 2000–01**

| Year | CSU | UC | Total |
|-------------|------------|-----------|--------------|
| 1993–94 | 44,454 | 10,508 | 54,962 |
| 1994–95 | 46,912 | 10,466 | 57,378 |
| 1995–96 | 48,688 | 10,620 | 59,308 |
| 1996–97 | 48,349 | 10,244 | 58,593 |
| 1997–98 | 45,546 | 9,872 | 55,418 |
| 1998–99 | 44,989 | 9,929 | 54,918 |
| 1999–00 | 47,706 | 10,547 | 58,253 |
| 2000–01 | 47,900 | 11,215 | 59,115 |

Source: CPEC, www.cpec.ca.gov.

Figure 17. Transfer Rates of California Community Colleges

Cohort of First-Time Students Who Began in Fall 1995, Tracked Six Years

| College | Transfer Rate (%) | College | Transfer Rate (%) |
|--------------------|-------------------|-------------------|-------------------|
| De Anza | 50.05 | Mt. San Antonio | 32.16 |
| Sacramento City | 48.97 | Bakersfield | 32.13 |
| Moorpark | 47.89 | Merced | 32.09 |
| Ohlone | 46.22 | L.A. Valley | 31.97 |
| Foothill | 45.53 | San Diego Miramar | 31.81 |
| San Mateo | 45.38 | Porterville | 31.58 |
| West Valley | 45.29 | Feather River | 31.19 |
| Cuesta | 45.14 | El Camino | 30.86 |
| Saddleback | 44.60 | Butte | 30.77 |
| Diablo Valley | 44.15 | Solano | 30.53 |
| Irvine Valley | 43.68 | Cerritos | 29.67 |
| Orange Coast | 43.64 | West Hills | 28.43 |
| San Francisco City | 43.24 | Hartnell | 27.97 |
| Santa Barbara City | 42.86 | Mt. San Jacinto | 27.55 |
| Reedley | 41.72 | Barstow | 27.54 |
| Canyons | 41.61 | Oxnard | 27.41 |
| Las Positas | 41.35 | Evergreen Valley | 26.82 |
| Palomar | 40.76 | Grossmont | 26.73 |
| Santa Rosa | 40.71 | L.A. Harbor | 26.69 |
| L.A. Pierce | 40.37 | Santa Ana | 26.66 |
| Golden West | 40.28 | Long Beach City | 26.36 |
| Pasadena City | 40.18 | Citrus | 26.26 |
| Skyline | 39.74 | Monterey | 26.24 |
| Cañada | 39.65 | L.A. Mission | 26.20 |
| Ventura | 39.40 | Desert | 26.05 |
| San Diego Mesa | 38.26 | Antelope Valley | 25.94 |
| Cabrillo | 38.16 | Merritt | 25.74 |
| Chabot | 37.82 | San Diego City | 25.58 |
| American River | 37.60 | Vista | 25.15 |
| Redwoods | 37.50 | San Jose City | 25.12 |
| Siskiyou | 37.37 | Chaffey | 24.89 |
| Mira Costa | 36.72 | Yuba | 24.72 |
| Mission | 36.55 | Cerro Coso | 24.37 |
| Cosumnes River | 36.46 | East L.A. | 23.89 |
| Sierra | 36.39 | Taft | 23.64 |
| Alameda | 36.33 | L.A. City | 23.62 |
| Allan Hancock | 36.09 | Los Medanos | 22.83 |
| Lassen | 35.65 | Santa Monica | 22.76 |
| San Joaquin Delta | 35.37 | Mendocino | 22.35 |
| Gavilan | 35.24 | Crafton Hills | 22.35 |
| Fullerton | 34.89 | Victor Valley | 22.08 |
| Modesto | 34.73 | Rio Hondo | 22.07 |
| Cypress | 34.37 | West L.A. | 21.74 |
| Fresno City | 34.26 | Contra Costa | 21.54 |
| Lake Tahoe | 34.21 | Cuyamaca | 20.04 |
| Shasta | 34.19 | Southwestern | 19.47 |
| Napa Valley | 33.77 | L.A. Southwest | 19.12 |
| Glendale | 33.46 | Marin | 17.12 |
| Laney | 33.07 | L.A. Trade-Tech | 16.90 |
| Coastline | 32.74 | Imperial Valley | 16.37 |
| Riverside | 32.42 | San Bernardino | 15.14 |
| Columbia | 32.38 | Compton | 8.56 |
| Sequoias | 32.37 | Palo Verde | 7.89 |

Source: California Community Colleges, Chancellor's Office, *Transfer Capacity and Readiness in the California Community College*, www.cccco.edu/divisions/ss/transfer/attachments/trans_cap_%20readi_ccc.pdf.

Figure 18. Transfer Rates for Selected Subpopulations

1994 Cohort Transferring within Six Years

| | Transfer Rate (%) |
|----------------------------------|-------------------|
| Gender | |
| Female | 33.5 |
| Male | 36.2 |
| Ethnicity | |
| Asian/Filipino/Pacific Islander | 43.1 |
| Black | 23.5 |
| Hispanic | 25.5 |
| Native American | 26.3 |
| Other Non-White | 38.5 |
| White | 37.2 |
| Unknown | 33.0 |
| Matriculation Status | |
| No Matriculation | 28.7 |
| At Least 1 Matriculation Service | 34.5 |
| Disability Status | |
| Disability | 25.1 |
| No Disability | 33.8 |
| Age Group (upon entry) | |
| <18 | 42.1 |
| 18 and 19 | 39.1 |
| 20–24 | 28.8 |
| 25–29 | 20.3 |
| 30–34 | 14.8 |
| 35–39 | 14.3 |
| 40–49 | 13.9 |
| 50+ | 19.9 |

Source: California Community Colleges, Chancellor's Office, *Transfer Capacity and Readiness in the California Community College*, www.cccco.edu/divisions/ss/transfer/attachments/trans_cap_%20readi_ccc.pdf.

Figure 19. Community College Students Transferring to Four-Year Publics and Independents as a Proportion of Community College First-Time Freshmen, Fall 2000

| County | Number of Students Transferring | Number of First-Time Freshmen | Ratio of CC Transfers to CC First-Time Freshmen |
|-----------------|--|--------------------------------------|--|
| Marin | 283 | 107 | 2.645 |
| Plumas | 48 | 21 | 2.286 |
| Contra Costa | 1,644 | 892 | 1.843 |
| Monterey | 550 | 329 | 1.672 |
| Napa | 228 | 145 | 1.572 |
| Yuba | 279 | 212 | 1.316 |
| San Francisco | 1,025 | 1,086 | 0.944 |
| Siskiyou | 53 | 58 | 0.914 |
| Santa Clara | 3,165 | 4,491 | 0.705 |
| El Dorado | 52 | 74 | 0.703 |
| Lassen | 81 | 124 | 0.653 |
| San Diego | 4,873 | 7,493 | 0.650 |
| Shasta | 461 | 780 | 0.591 |
| Orange | 5,383 | 11,104 | 0.485 |
| San Mateo | 926 | 1,934 | 0.479 |
| Humboldt | 269 | 572 | 0.470 |
| Santa Cruz | 447 | 969 | 0.461 |
| Los Angeles | 10,713 | 23,491 | 0.456 |
| Sacramento | 2,217 | 4,927 | 0.450 |
| Sonoma | 885 | 1,977 | 0.448 |
| Butte | 517 | 1,185 | 0.436 |
| San Joaquin | 846 | 1,972 | 0.429 |
| Santa Barbara | 949 | 2,244 | 0.423 |
| Riverside | 1,342 | 3,213 | 0.418 |
| Alameda | 1,778 | 4,340 | 0.410 |
| Fresno | 1,449 | 3,590 | 0.404 |
| Ventura | 1,429 | 3,564 | 0.401 |
| Placer | 774 | 2,006 | 0.386 |
| San Bernardino | 1,438 | 4,006 | 0.359 |
| San Luis Obispo | 481 | 1,396 | 0.345 |
| Merced | 299 | 900 | 0.332 |
| Kern | 806 | 2,673 | 0.302 |
| Stanislaus | 720 | 2,402 | 0.300 |
| Solano | 346 | 1,169 | 0.296 |
| Imperial | 195 | 696 | 0.280 |
| Mendocino | 83 | 303 | 0.274 |
| Tulare | 421 | 2,003 | 0.210 |
| Tuolumne | 0 | 302 | 0.000 |

Source: CPEC, www.cpec.ca.gov.

Figure 20. State and Local Surplus or Shortfall as a Percentage of Baseline Revenues in 2010

| Rank | State | Percent | Rank | State | Percent |
|-----------|-------------------|-------------|------|----------------------|-------------|
| 1 | Vermont | 3.1 | 27 | Pennsylvania | -2.9 |
| 2 | North Dakota | .2 | 28 | Virginia | -3.0 |
| 3 | Maine | 1.3 | 29 | Georgia | -3.2 |
| 4 | New Jersey | 0.6 | | United States | -3.4 |
| 5 | Delaware | 0.2 | 30 | Kentucky | -3.4 |
| 6 | Wisconsin | 0.0 | 31 | Arkansas | -3.5 |
| 7 | Kansas | -0.3 | 32 | Hawaii | -3.6 |
| 8 | Montana | -0.4 | 33 | New Mexico | -3.6 |
| 9 | Maryland | -0.5 | 34 | Iowa | -3.7 |
| 10 | New Hampshire | -0.6 | 35 | New York | -3.8 |
| 11 | Arizona | -0.7 | 36 | Illinois | -4.2 |
| 12 | Massachusetts | -0.8 | 37 | Missouri | -4.7 |
| 13 | Utah | -0.8 | 38 | Washington | -4.9 |
| 14 | Oklahoma | -1.3 | 39 | Idaho | -5.0 |
| 15 | Oregon | -1.3 | 40 | Indiana | -5.2 |
| 16 | Nebraska | -1.4 | 41 | North Carolina | -5.6 |
| 17 | Ohio | -1.4 | 42 | Texas | -5.7 |
| 18 | South Dakota | -1.7 | 43 | Florida | -5.7 |
| 19 | Michigan | -1.7 | 44 | South Carolina | -6.3 |
| 20 | Rhode Island | -1.9 | 45 | Wyoming | -7.8 |
| 21 | Minnesota | -1.9 | 46 | Mississippi | -8.6 |
| 22 | Colorado | -2.3 | 47 | Louisiana | -8.8 |
| 23 | Alaska | -2.4 | 48 | Alabama | -9.2 |
| 24 | California | -2.5 | 49 | Nevada | -9.2 |
| 25 | Connecticut | -2.9 | 50 | Tennessee | -9.7 |
| 26 | West Virginia | -2.9 | | | |

Source: Rockefeller Institute of Government, prepared for NCHEMS, 2002.

Figure 21. Percentage Change in Spending to Maintain Current Services

| Rank | State | 8-Year Spending Growth Rate | | Average Annual Additional Spending Needed for Higher Education* |
|------|----------------|-----------------------------|--------------|---|
| | | Higher Education | All Programs | |
| 1 | Nevada | 93.6 | 67.5 | 1.9 |
| 2 | New Jersey | 54.1 | 39.5 | 1.3 |
| 3 | Virginia | 54.3 | 47.4 | 0.6 |
| 4 | Connecticut | 44.6 | 40.0 | 0.4 |
| 5 | Massachusetts | 43.6 | 39.9 | 0.3 |
| 6 | Illinois | 42.5 | 39.2 | 0.3 |
| 7 | Arizona | 63.1 | 59.9 | 0.3 |
| 8 | Pennsylvania | 38.3 | 37.5 | 0.1 |
| 9 | Delaware | 41.9 | 42.6 | -0.1 |
| 10 | Colorado | 48.5 | 50.3 | -0.2 |
| 11 | Maryland | 40.8 | 42.6 | -0.2 |
| 12 | Rhode Island | 37.0 | 38.9 | -0.2 |
| 13 | Michigan | 34.2 | 37.5 | -0.3 |
| 14 | California | 48.5 | 52.2 | -0.3 |
| 15 | North Carolina | 51.3 | 55.3 | -0.3 |
| 16 | Florida | 51.0 | 57.5 | -0.6 |
| 17 | New York | 37.4 | 44.1 | -0.6 |
| 18 | Alaska | 34.7 | 41.8 | -0.7 |
| | United States | 40.0 | 47.4 | -0.7 |
| 19 | Ohio | 32.7 | 40.2 | -0.7 |
| 20 | New Hampshire | 39.1 | 46.8 | -0.7 |
| 21 | Missouri | 35.6 | 43.6 | -0.7 |
| 22 | Tennessee | 41.5 | 51.9 | -0.9 |
| 23 | Indiana | 35.3 | 45.8 | -1.0 |
| 24 | Wisconsin | 27.9 | 38.9 | -1.1 |
| 25 | Georgia | 47.3 | 59.2 | -1.0 |
| 26 | Kentucky | 35.5 | 47.9 | -1.1 |
| 27 | Texas | 42.7 | 56.1 | -1.2 |
| 28 | Iowa | 26.6 | 41.7 | -1.5 |
| 29 | Minnesota | 27.0 | 42.1 | -1.5 |
| 30 | South Carolina | 43.8 | 59.4 | -1.4 |
| 31 | Washington | 34.5 | 51.0 | -1.5 |
| 32 | Kansas | 22.6 | 39.3 | -1.7 |
| 33 | Oklahoma | 23.5 | 40.5 | -1.7 |
| 34 | Arkansas | 28.5 | 46.9 | -1.7 |
| 35 | Hawaii | 23.9 | 43.9 | -1.9 |
| 36 | West Virginia | 22.7 | 43.7 | -2.0 |
| 37 | Oregon | 31.4 | 52.5 | -1.9 |
| 38 | Nebraska | 19.5 | 40.8 | -2.1 |
| 39 | Montana | 15.1 | 36.8 | -2.2 |
| 40 | Alabama | 27.8 | 49.6 | -2.0 |
| 41 | Maine | 20.1 | 42.5 | -2.2 |
| 42 | Utah | 28.7 | 51.2 | -2.1 |
| 43 | Idaho | 31.0 | 54.9 | -2.2 |
| 44 | Mississippi | 28.9 | 52.9 | -2.2 |
| 45 | Vermont | 10.2 | 37.8 | -2.9 |
| 46 | Louisiana | 18.8 | 46.7 | -2.7 |
| 47 | North Dakota | 3.3 | 33.7 | -3.3 |
| 48 | South Dakota | 7.2 | 38.1 | -3.2 |
| 49 | New Mexico | 21.9 | 53.4 | -3.0 |
| 50 | Wyoming | 1.6 | 44.1 | -4.5 |

*Positive numbers mean that state spending needs for higher education are projected to grow faster than state spending needs for other programs, based on current service levels. Negative numbers mean the reverse.

Source: Rockefeller Institute of Government, prepared for NCHEMS, 2002.

Figure 22. Unfunded Credit and Non-Credit FTE* Students

| 2000-01 | | | 2001-02 | | |
|---------------------|---|---|------------------|---|---|
| District | Unfunded Credit FTEs after Basic Skills | Unfunded Non-Credit FTEs after Basic Skills | District | Unfunded Credit FTEs after Basic Skills | Unfunded Non-Credit FTEs after Basic Skills |
| Cabrillo | 5.76 | 0.57 | Allan Hancock | 20.67 | 1.28 |
| Citrus | 130.80 | 194.89 | Cabrillo | 29.64 | 3.31 |
| Coast | 75.23 | 0.10 | Cerritos | 855.48 | 50.49 |
| Compton | 440.12 | 3.15 | Chaffey | 78.94 | 14.52 |
| Contra Costa | 26.61 | 4.33 | Citrus | 321.94 | 154.82 |
| Los Angeles | 4,781.73 | 817.21 | Compton | 643.09 | 0.00 |
| North Orange | 72.03 | 31.98 | Feather River | 20.69 | 0.00 |
| Palo Verde | 110.70 | 17.05 | Foothill-De Anza | 317.88 | 0.00 |
| Palomar | 32.27 | 6.68 | Fremont-Newark | 44.43 | 0.00 |
| Rancho Santiago | 315.73 | | Glendale | 1,075.68 | 0.00 |
| Riverside | 1,377.11 | 0.00 | Kern | 620.31 | 18.30 |
| San Jose-Evergreen | 94.66 | 0.00 | Los Angeles | 10,368.32 | 1,297.17 |
| San Mateo | 73.49 | 0.41 | Los Rios | 0.00 | 0.00 |
| Victor Valley | 11.87 | 175.07 | Mendocino | 0.55 | 0.00 |
| West Hills | 4.19 | 6.37 | Merced | 427.32 | 0.00 |
| West Kern | 314.34 | 12.40 | Mira Costa | 63.89 | 217.21 |
| West Valley-Mission | 3.88 | 5.86 | Monterey | 14.99 | 7.62 |
| Yuba | 12.37 | 0.34 | Mt. San Antonio | 19.63 | 18.70 |
| Total | 7,882.69 | 1,276.41 | North Orange | 817.02 | 117.41 |
| | | | Palomar | 1,293.31 | 0.00 |
| | | | Pasadena | 680.61 | 0.00 |
| | | | Peralta | 0.00 | 0.00 |
| | | | Rancho Santiago | 1,629.07 | 297.97 |
| | | | Redwoods | 20.78 | 0.00 |
| | | | Rio Hondo | 95.66 | 65.30 |
| | | | Riverside | 3,320.49 | 23.17 |
| | | | San Bernardino | 91.63 | 0.20 |
| | | | San Francisco | 11.02 | 20.40 |
| | | | San Joaquin | 0.00 | 0.00 |
| | | | San Luis Obispo | 2.88 | 0.00 |
| | | | Santa Clarita | 371.03 | 0.00 |
| | | | Santa Monica | 0.00 | 0.00 |
| | | | Shasta | 37.19 | 0.00 |
| | | | Sonoma | 0.00 | 0.00 |
| | | | Southwestern | 0.00 | 0.00 |
| | | | State Center | 37.26 | 0.45 |
| | | | Ventura | 0.00 | 0.00 |
| | | | Victor Valley | 417.98 | 0.00 |
| | | | West Hills | 71.62 | 8.98 |
| | | | West Kern | 284.19 | 0.00 |
| | | | West Valley | 222.21 | 11.86 |
| | | | Yosemite | 8.47 | 0.36 |
| | | | Yuba | 30.18 | 0.00 |
| | | | Total | 24,366.05 | 2,329.52 |

* FTE = Full-time equivalent.

Source: California Community Colleges, Chancellor's Office, special analysis, www.cccco.ed.

ABOUT THE AUTHORS

Patrick M. Callan, author of the preface, is president of the National Center for Public Policy and Higher Education. He has previously served as executive director of the California Higher Education Policy Center, the California Postsecondary Education Commission, the Washington State Council for Postsecondary Education, and the Montana Commission on Postsecondary Education, and as vice president of the Education Commission of the States.

Gerald C. Hayward is a founding partner of Management, Analysis and Planning, Inc., an educational consulting firm with offices in Berkeley and Sacramento. He is also a former director of Policy Analysis for California Education (PACE), an independent policy research center that provides analysis and assistance to California policymakers, educational leaders, and others. Prior to joining PACE, Hayward served for six years as deputy director of the National Center for Research in Vocational Education, located at UC Berkeley. From 1980 to 1985, he served as chancellor of the California Community Colleges, and prior to that he served for a decade as principal consultant to the California State Senate Committees on Education and Finance. A former teacher and administrator in California's public schools, Hayward has directed a dozen school district reorganization studies over the last five years. He has a bachelor's degree in political science from UC Berkeley and a master's degree in education administration from San Francisco State University.

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Ensuring Access with Quality to California's Community Colleges, by Gerald C. Hayward, Dennis P. Jones, Aims C. McGuinness, Jr., and Allene Timar, with a postscript by Nancy Shullock (May 2004, #04-3). This report finds that enrollment growth pressures, fee increases, and recent budget cuts in the California Community Colleges are having significant detrimental effects on student access and program quality. The report also provides recommendations for creating improvements that build from the state policy context and from existing promising practices within the community colleges.

Public Attitudes on Higher Education: A Trend Analysis, 1993 to 2003, by John Immerwahr (February 2004, #04-2). This public opinion survey, prepared by Public Agenda for the National Center, reveals that public attitudes about the importance of higher education have remained stable during the recent economic downturn. The survey also finds that there are some growing public concerns about the costs of higher education, especially for those groups most affected, including parents of high school students, African Americans, and Hispanics.

Responding to the Crisis in College Opportunity (January 2004, #04-1). This policy statement, developed by education policy experts at Lansdowne, Virginia, proposes short-term emergency measures and long-term priorities for governors and legislators to consider for funding higher education during the current lean budget years. *Responding to the Crisis* suggests that in 2004 the highest priority for state higher education budgets should be to protect college access and affordability for students and families.

With Diploma in Hand: Hispanic High School Seniors Talk about their Future, by John Immerwahr (June 2003, #03-2). This report by Public Agenda explores some of the primary obstacles that many Hispanic students face in seeking higher education, barriers which suggest opportunities for creative public policy to improve college attendance and completion rates among Hispanics.

Purposes, Policies, Performance: Higher Education and the Fulfillment of a State's Public Agenda (February 2003, #03-1). This essay is drawn from discussions of higher education leaders and policy officials at a roundtable convened in June 2002 at New Jersey City University on the relationship between public purposes, policies, and performance of American higher education.

Measuring Up 2002: The State-by-State Report Card for Higher Education (October 2002, #02-7). This report card, which updates the inaugural edition released in 2000, grades each state on its performance in five key areas of higher education. *Measuring Up 2002* also evaluates each state's progress in relation to its own results from 2000. Visit www.highereducation.org to download *Measuring Up 2002* or to make your own comparisons of state performance in higher education. Printed copies are available for \$25.00 by calling 888-269-3652 (discounts available for large orders).

Technical Guide Documenting Methodology, Indicators, and Data Sources for Measuring Up 2002 (October 2002, #02-8).

State Policy and Community College-Baccalaureate Transfer, by Jane V. Wellman (July 2002, #02-6). Recommends state policies to energize and improve higher education performance regarding transfers from community colleges to four-year institutions.

Fund for the Improvement of Postsecondary Education: The Early Years (June 2002, #02-5). The Fund for the Improvement of Postsecondary Education (FIPSE) attained remarkable success in funding innovative and enduring projects during its early years. This report, prepared by FIPSE's early program officers, describes how those results were achieved.

Losing Ground: A National Status Report on the Affordability of American Higher Education (May 2002, #02-3). This national status report documents the declining affordability of higher education for American families, and highlights public policies that support affordable higher education. Provides state-by-state summaries as well as national findings.

The Affordability of Higher Education: A Review of Recent Survey Research, by John Immerwahr (May 2002, #02-4). This review of recent surveys by Public Agenda confirms that Americans feel that rising college prices threaten to make higher education inaccessible for many people.

Coping with Recession: Public Policy, Economic Downturns, and Higher Education, by Patrick M. Callan (February 2002, #02-2). Outlines the major policy considerations that states and institutions of higher education face during economic downturns.

Competition and Collaboration in California Higher Education, by Kathy Reeves Bracco and Patrick M. Callan (January 2002, #02-1). Argues that the structure of California's state higher education system limits the system's capacity for collaboration.

Measuring Up 2000: The State-by-State Report Card for Higher Education (November 2000, #00-3). This first-of-its-kind report card grades each state on its performance in higher education. The report card also provides comprehensive profiles of each state and brief states-at-a-glance comparisons. Visit www.highereducation.org to download *Measuring Up 2000* or to make your own comparisons of state performance in higher education. Printed copies are available for \$25.00 by calling 888-269-3652 (discounts available for large orders).

Beneath the Surface: A Statistical Analysis of the Major Variables Associated with State Grades in Measuring Up 2000, by Alisa F. Cunningham and Jane V. Wellman (November 2001, #01-4). Using statistical analysis, this report explores the “drivers” that predict overall performance in *Measuring Up 2000*.

Supplementary Analysis for Measuring Up 2000: An Exploratory Report, by Mario Martinez (November 2001, #01-3). Explores the relationships within and between the performance categories in *Measuring Up 2000*.

Some Next Steps for States: A Follow-up to Measuring Up 2000, by Dennis Jones and Karen Paulson (June 2001, #01-2). Suggests a range of actions that states can take to bridge the gap between state performance identified in *Measuring Up 2000* and the formulation of effective policy to improve performance in higher education.

A Review of Tests Performed on the Data in Measuring Up 2000, by Peter Ewell (June 2001, #01-1). Describes the statistical testing performed on the data in *Measuring Up 2000* by the National Center for Higher Education Management Systems.

Recent State Policy Initiatives in Education: A Supplement to Measuring Up 2000, by Aims McGuinness, Jr. (December 2000, #00-6). Highlights education initiatives that states have adopted since 1997–98.

Assessing Student Learning Outcomes: A Supplement to Measuring Up 2000, by Peter Ewell and Paula Ries (December 2000, #00-5). National survey of state efforts to assess student learning outcomes in higher education.

Technical Guide Documenting Methodology, Indicators and Data Sources for Measuring Up 2000 (November 2000, #00-4).

A State-by-State Report Card on Higher Education: Prospectus (March 2000, #00-1). Summarizes the goals of the National Center’s report card project.

Great Expectations: How the Public and Parents—White, African-American and Hispanic—View Higher Education, by John Immerwahr with Tony Foleno (May 2000, #00-2). This report by Public Agenda finds that Americans overwhelmingly see higher education as essential for success. Survey results are also available for the following states:

Great Expectations: How Pennsylvanians View Higher Education (May 2000, #00-2b)

Great Expectations: How Floridians View Higher Education (August 2000, #00-2c)

Great Expectations: How Coloradans View Higher Education (August 2000, #00-2d)

Great Expectations: How Californians View Higher Education (August 2000, #00-2e)

Great Expectations: How New Yorkers View Higher Education (October 2000, #00-2f)

Great Expectations: How Illinois Residents View Higher Education (October 2000, #00-2h)

State Spending for Higher Education in the Next Decade: The Battle to Sustain Current Support, by Harold A. Hovey (July 1999, #99-3). This fiscal forecast of state and local spending patterns finds that the vast majority of states will face significant fiscal deficits over the next eight years, which will in turn lead to increased scrutiny of higher education in almost all states, and to curtailed spending for public higher education in many states.

South Dakota: Developing Policy-Driven Change in Higher Education, by Mario Martinez (June 1999, #99-2). Describes the processes for change in higher education that government, business, and higher education leaders are creating and implementing in South Dakota.

Taking Responsibility: Leaders' Expectations of Higher Education, by John Immerwahr (January 1999, #99-1). Reports the views of those most involved with decisionmaking about higher education, based on a survey and focus groups conducted by Public Agenda.

The Challenges and Opportunities Facing Higher Education: An Agenda for Policy Research, by Dennis Jones, Peter Ewell, and Aims McGuinness (December 1998, #98-8). Argues that due to substantial changes in the landscape of postsecondary education, new state-level policy frameworks must be developed and implemented.

Higher Education Governance: Balancing Institutional and Market Influences, by Richard C. Richardson, Jr., Kathy Reeves Bracco, Patrick M. Callan, and Joni E. Finney (November 1998, #98-7). Describes the structural relationships that affect institutional effectiveness in higher education, and argues that state policy should strive for a balance between institutional and market forces.

Federal Tuition Tax Credits and State Higher Education Policy: A Guide for State Policy Makers, by Kristin D. Conklin (December 1998, #98-6). Examines the implications of the federal income tax provisions for students and their families, and makes recommendations for state higher education policy.

The Challenges Facing California Higher Education: A Memorandum to the Next Governor of California, by David W. Breneman (September 1998, #98-5). Argues that California should develop a new Master Plan for Higher Education.

Tidal Wave II Revisited: A Review of Earlier Enrollment Projections for California Higher Education, by Gerald C. Hayward, David W. Breneman, and Leobardo F. Estrada (September 1998, #98-4). Finds that earlier forecasts of a surge in higher education enrollments were accurate.

Organizing for Learning: The View from the Governor's Office, by James B. Hunt Jr., chair of the National Center for Public Policy and Higher Education, and former governor of North Carolina (June 1998, #98-3). An address to the American Association for Higher Education concerning opportunity in higher education.

The Price of Admission: The Growing Importance of Higher Education, by John Immerwahr (Spring 1998, #98-2). A national survey of Americans' views on higher education, conducted and reported by Public Agenda.

Concept Paper: A National Center to Address Higher Education Policy, by Patrick M. Callan (March 1998, #98-1). Describes the purposes of the National Center for Public Policy and Higher Education.

