ITEM 7
DRAFT

California Postsecondary Education Commission

Program Planning and Review to Promote Responsiveness to Public Needs, 2006-07

June 2007

State law directs the California Post-secondary Education Commission to review and comment on new degree and certificate programs proposed by the public higher education systems.

This annual report provides a summary of program planning and review activities conducted by the Commission during the 2006-07 academic year. During this reporting period Commission staff (1) conducted an extensive review of a UC law school proposal; (2) reviewed seven CSU proposals for doctoral programs in educational leadership; (3) reviewed six additional UC graduate proposals; and (4) convened an advisory committee to consider recommendations for enhancing the Commission's program review guidelines, principles, and procedures. Other program review activities are also summarized.

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The Commission advises the Governor and the Legislature on higher education policy and fiscal issues. Its primary focus is to ensure that the State's educational resources are used effectively to provide Californians with postsecondary education opportunities. More information about the Commission is available at www.cpec.ca.gov.

Introduction

The California Legislature, the Administration, and the Legislative Analyst's Office consider the review of proposals for new degree and certificate programs to be among the most important responsibilities of the California Postsecondary Education Commission. The Commission's review process is intended to help ensure that State operational and capital funds are spent wisely and that new programs will produce desirable educational outcomes while contributing to societal betterment.

During the reporting period, Commission analysts were involved in a number of challenging program review initiatives, including a review of a University of California proposal for a new public law school, review of seven California State University proposals for doctoral programs in educational leadership, review of the long-range program plans of the University of California and the California State University, and review of preliminary information and data submitted by the University of California in support of a need for a new UC allopathic medical school.

In addition, Commission analysts convened an advisory committee to consider recommendations for clarifying and strengthening the Commission's review guidelines and procedures, met with the President of CSU East Bay regarding the development of a proposal to offer lower-division instruction at the campus's Concord educational center, and reviewed seven additional proposals from the University of California for new doctoral programs in various academic and professional fields.

This report provides a summary of these program review initiatives.

Enhancing the Commission's Program Review Process

Although each public, independent, and private higher education system in California has a unique mission and social purpose, the systems are united in a fundamental way: each aims to enhance the intellectual, technical, and creative capacity of students. Because advanced knowledge—*scientific, technical*, and *procedural*—tends to be organized by fields of study, and delivered to students through specific programs, the ultimate success and benefit of the State's higher education enterprise rest with the quality and breadth of institutional degree and certificate programs.

The guidelines used by Commission staff in reviewing proposals for new degree and certificate programs are presented in Appendix A. They include the following seven criteria:

- Student Demand
- Societal Needs
- Appropriateness to the Institutional and System Mission
- Number of Existing and Proposed Programs in the Field
- Total Costs of the Program
- Maintenance and Improvement of Quality
- Advancement of Knowledge

During the 2006-07 academic year, staff convened the Program Review Advisory Committee to consider recommendations for enhancing and clarifying the Commission's program review guidelines, principles, and procedures. The effort was initiated in part to ensure that the review process will continue to result in valid and forward-thinking assessments, as public colleges and universities propose more novel and innovative degree and certificate programs to meet emerging educational and societal needs. The Commission adopted a staff report (Report 06-17) in December 2006 that contained the following three recommendations:

1. Criteria and expectations related to social need should be described more fully in the guidelines.
2. Greater consideration should be given to the development of statewide and regional long-range program plans that will benefit the Legislature and California's public and private higher education systems.
3. Specific procedures should be established for assessing the extent to which adult continuing education needs are being met.

Under consideration is a fourth recommendation calling for statutory language that would provide the Commission with approval authority for program proposals involving substantial State capital outlay funds. The Commission currently has approval authority for proposals for new public campuses and off-campus centers.

Implementing and reaching external agreement on the above recommendations will be a difficult task because of the myriad issues involved. For instance, clarifying the societal need criteria would certainly assist higher education systems in identifying the range of evidentiary information that would be most useful in substantiating and documenting workforce and knowledge needs. However, various campus planners and officials have expressed concern that the Commission's guidelines would be too prescriptive if they outlined specific types of data to be included in proposals. The higher education systems also argue that in any given budget year they might not have the resources necessary to compile relevant data and information recommended by the Commission.

A major Commission challenge is to help the higher education systems develop credible and compelling program proposals while not becoming prescriptive or judgmental. Greater clarity of the societal need criteria will enable the Commission to better communicate the importance of aligning instructional objectives of professional and paraprofessional programs with intended intermediate and long-term societal needs. To the extent possible, public educational benefits should be expressed in measurable terms to promote institutional self-appraisal and evaluation. This standard is consistent with those adopted by the *Western Association of Schools and Colleges* (WASC), a regional accrediting body, that call for public higher education institutions to establish and support annual assessment practices that enable them to gather and compile a *culture of evidence* that makes transparent the public benefit of degree and certificate programs.

A second challenge is to develop a credible statewide higher education program plan. It requires answering complex questions such as (a) what should a statewide plan entail; (b) what resources would be required to produce a high-quality plan; and (c) to what specific uses by the higher education systems, the legislature, and the administration should the plan be directed? Answers to these and other relevant questions are being addressed, and it is anticipated that a blueprint for a statewide program plan will be crafted next year.

University of California Proposals Reviewed by the Commission

UC Law School Proposal

Commission staff spent considerable time during the 2006-07 reporting period reviewing and analyzing a proposal to establish a public law school at the University of California, Irvine. The proposal expressed a need by the University to expand access to public legal education programs on a regional and statewide basis in order to increase the number of legal professionals qualified to practice law in California, and qualified to assume leadership roles in law, public service, government, and business. To conduct a credible review, Commission analysts considered supplemental information provided by UCI and the UC Office of the President, and contracted with the consulting services of a former mathematical statistician of the *Bureau of Labor Statistics (BLS)* to assist staff in analyzing supply-demand data obtained from the *Labor Market Information Division of the California Employment and Development Department, the U.S. Census Bureau, and the RAND Corporation.*

Based on a comprehensive program review, it was found that the UC Irvine proposal met the Commission's review criteria regarding *Student Demand, Appropriateness to Institutional Mission, Maintenance and Improvement of Quality,* and *Advancement of Knowledge.* The analysis indicated, however, that the proposal did not satisfactorily meet the industry and occupational demand component of the Commission's *Social Need* criteria*;* the program duplication component of the criteria regarding the *Number of Existing and Proposed Programs in the Field;* and the criteria regarding *Total Operational and Capital Costs of the Program.*

Given the review findings, the Commission was unable to support the proposal to establish a public law school at UC Irvine. More specifically, the Commission concluded:

1. The occupational and industry projections of the California Labor Market Information Division indicated that the current growth in the number of Bar-certified lawyers would keep pace with or exceed legal demand between now and year 2014.

2. The State's knowledge needs in the domain of legal education could be met by existing public and independent law schools.

3. The projected public costs were questionable because the need for a new public law school had not been demonstrated by the evidence contained in the proposal.

The Commission expressed to the University its willingness to reconsider a proposal for a new public law school when labor market and knowledge needs warrant such consideration, and when a more compelling case can be established that meets the Commission's program review criteria. The Commission's analysis of the UC Irvine Law School Proposal can be accessed using the following link: http://www.cpec.ca.gov/completereports/2007reports/07-01.pdf

Other UC Proposals Reviewed

Commission staff reviewed seven UC proposals for new graduate programs in addition to the law school proposal. As shown in Display 1, five of the proposals address workforce and knowledge needs in the physical and social sciences, while the remaining two proposals expand opportunities for students to pursue UC graduate instruction in humanities-related disciplines.

DISPLAY 1 New Graduate Programs Proposed by the University of California, July 2006 through June 2007 (Excludes UCI Law School Proposal)

Program	Discipline Area	UC Campus	Degree Level	Review Month
Computer Science	Physical Science	Irvine	M.S./Ph.D.	July 2006
Environmental Sciences	Physical Science	Merced	Ph.D.	March 2007
Bioengineering	Physical Science	Riverside	M.S./Ph.D.	July 2006
Ethnic Studies	Humanities	Riverside	M.A./Ph.D.	January 2007
International Studies	Social Science	San Diego	B.A./M.A.	July 2006
Film and Digital Media	Humanities	Santa Cruz	M.A./Ph.D.	February 2007
Statistics	Physical Science	Santa Cruz	M.A./Ph.D.	June 2006

All of the seven program proposals shown above met each of the Commission's review criteria. In particular, public needs were clearly identified and substantiated. For example, a bioengineering proposal from UC Riverside noted the scientific advances occurring in engineering science and molecular/cellular biology that have led to new fields of discovery that bridge the biological and engineering domains to develop new industry processes and products. The newly-approved bioengineering program at UC Riverside will expand the supply of engineering graduates that have the intellectual and technical capacity to solve complex problems in living systems dealing with plants, animals, and humans. Labor market projection data indicate that demand will remain strong for engineering-based occupations.

As an example of program needs in the humanities, the University referenced studies confirming that many social and economic problems continue to be race-, class- and gender-based. Graduate programs in ethnic studies seek to develop appropriate policy solutions and remedies to such problems through systematic and comparative study of ethnic groups, racism, and the impact of law and social inequality on contemporary society. Graduate students who major in ethnic studies are provided with opportunities to study such problems using theoretically- and empirically-based frameworks. UC Riverside anticipates strong demand for its doctoral program in ethnic studies because it would be just "one of three doctoral programs in the country." Riverside campus officials report that similar programs at UC Berkeley and UC San Diego are only able to accommodate about 18% of their respective applicants. Doctoral graduates of ethnic studies programs are qualified to fill positions in education and research, public administration, social services, and public law/advocacy.

UC Long-Range Program Plans

Appendix B contains the University of California five-year program plans covering the period, 2007-2012. Systemwide, these plans reflect a need by the University to expand graduate instruction and programs to meet societal needs. During the recession years of the present and previous decades, the Legislature encouraged the University to place a higher priority on undergraduate instruction and less on graduate programs. The University is hopeful that as California continues to experience a moderate level of economic expansion, more State dollars will become available to enable UC graduate programs to return to more appropriate levels.

DISPLAY 2 University of California Five-Year Graduate Programs Planned by General Discipline Area

General Discipline Area	Number	Percent
Physical Sciences	48	26.8
Humanities	45	25.1
Professional Studies	31	17.3
Social Sciences	26	14.5
Health Sciences	21	11.7
Biological Sciences	8	4.5
Total Proposed	179	100.0

Shown in Display 2 are the proposed graduate programs of Appendix B that have been collapsed by Commission staff into six general discipline areas. The majority of these programs are at the early stages of the planning process. All of these programs will require Commission review if they reach the UC systemwide review level and are endorsed. About 27% of the proposed programs are in the *physical science domain, which include programs in engineering, bioengineering, computer science, mathematics and statistics, architecture, and environmental science*. As noted in the previous section, demand for engineering-related occupations will remain high over the next five years.

Display 2 also reveals health science program needs. During the past two years, Commission staff held several meetings with UC campus and systemwide officials regarding their interest in expanding health science programs to meet the critical health care needs of the State. As shown in Display 3, UC health science programs currently consist of five comprehensive schools of medicine—nursing, pharmacy, public health and two dentistry schools—in addition to one optometry school and one veterinary medicine school. Collectively, these programs enroll more than 13,000 students annually. In 2001, the UC's Universitywide Health Sciences Committee conducted a study to assess California's workforce needs in the health sciences, and to make recommendations regarding the University's capacity to respond to current and future supply and demand needs. Some of the findings of that study include:

DISPLAY 3 UC Health Sciences Instructional Programs, 2003-04

Program Field	Schools	1st Year Professional Students	Total Budgeted Enrollment Professional Students	Total Budgeted Residency Positions	Total Budgeted Graduate Student Positions	Total Budgeted Enroll-ment	State-Supported FTE Faculty
Dentistry	UCLA	88	352	50	34	436	86
	UCSF	80	320	31	77	428	102.4
Medicine	UCD	93	372	516	115	1,003	191.6
	UCI	92	368	581	93	1,040	186.6
	UCLA	165	732	1,500	220	2,452	444.3
	UCSD	122	488	402	226	1,116	211.3
	UCSF	153	612	1,000	495	2,115	364.5
Nursing	UCLA	---	---	---	265	265	33.1
	UCSF	---	---	---	598	598	75.4
Optometry	UCB	65	255	11	23	289	23.0
Pharmacy	UCSD	25	50	10	10	70	3.7
	UCSF	117	465	34	77	567	55.8
Public Health	UCB	129	259	8	149	416	50.1
	UCLA	168	337	16	211	564	64.9
Veterinary Medicine	UCD	131	524	90	181	795	132.5
Totals	15	1,428	5,125	4,249	2,774	12,154	2,025.5

- In the absence of program expansion, California will likely face a shortage of 17,000 physicians by 2015. The shortfall is expected to result from statewide and regional population growth, and from the aging of the physician workforce. Nearly 70% of California physicians are 45 years of age and older.
- California ranks 49th in the nation in the number of nurses per capita and will likely face a shortfall of 60,000 nurses by 2020. There also is a critical shortage of teaching faculty in university nursing programs. Presently, California must rely on other states and countries to supply nearly half of its RN workforce.
- Given emerging health threats, the State and national public health workforce is deficient in crisis training and preparation.
- The demand for pharmaceutical products will increase as the State's population ages. California currently ranks 48th in the nation in the number of pharmacists per capita. Additional factors fueling demand include (1) development of new medications and drug therapies, (2) new uses for existing medications, (3) broader insurance coverage for some medications, and (4) growing need for pharmacists within the biotechnology industry.

The University believes that expanding medical enrollments will require at a minimum, one, and possibly two, new UC comprehensive medical schools. Currently, California relies on out-of-state medical

schools to supply 75% of the State's *osteopathic* and *allopathic* medical workforce. The term, osteopathic, refers to doctors who are trained on preventive medicine and holistic patient care involving musculoskeletal manipulation. The degree, *Doctor of Osteopathic Medicine* (DO), is awarded to these individuals. The term, allopathic, refers to the comprehensive study of medicine and disease leading to the Doctor of Medicine Degree (MD). Students of allopathic medicine enter residency training and pursue practice in selected medical or surgical specialty areas. All of the UC medical schools provide allopathic instruction and clinical training. Of the private medical schools, two (Western University and Touro University) offer osteopathic programs and three (Stanford, USC, and Loma Linda) offer allopathic programs. As mentioned earlier, the Commission anticipates receiving in 2008 a formal proposal to establish an allopathic medical school at UC Riverside.

From a statewide perspective, it appears that the University's five-year program plan, which emphasizes graduate program expansion in the physical sciences and the health sciences, is one that will meet demonstrated societal needs. However, more in-depth study of the specific programs comprising the plan in relationship to urgent State needs is needed before the Commission can offer the Governor and Legislature an informed appraisal of UC program planning. In this regard, Commission staff will be holding extensive discussions with UC planners and State and regional labor market planners.

California State University Proposals Reviewed by the Commission

CSU Doctoral Proposals in Educational Leadership

Chapter 269 of the California Education Code, Statutes of 2005, authorizes the California State University to offer doctoral programs in educational leadership to prepare leaders and administrators to participate more effectively in school reform efforts and to formulate administrative practices that will lead to improvements in K-14 instruction and learning. The education code requires that these programs be designed and operated in partnership with public schools and community colleges. Previously, the CSU had been limited to offering the doctor of education degree only in partnership (jointly) with the University of California, or in partnership with one of the State's accredited independent colleges and universities.

During 2006-07, Commission staff spent extensive time reviewing and commenting on seven educational doctoral proposals submitted by the California State University. After consultation with CSU officials, Commission staff reviewed the first two proposals and provided feedback to the CSU on how well the proposals responded to the Commission's seven program review criteria. A letter was sent to the CSU that contained initial findings and recommendations for improving subsequent education leadership proposals.

Initial Findings and Recommendations

Commission analysts found that the two proposals complied with the program review criteria related to *student demand, appropriateness to institutional mission, number of existing and proposed programs in the field,* and *advancement of knowledge*. Staff recommended, however, that the CSU describe and clarify how the information contained in the proposals complied fully with (1) components of the *societal need criterion*, (2) the program evaluation component of the *maintenance and improvement of quality criterion*, and (3) description of funds and expenditures associated with the *program cost criterion*. Specific suggestions for improvement were summarized.

The letter sent to the CSU appears in Appendix C. In summary, a key concern raised by Commission staff was that the proposals made general reference to educational leadership needs of the State, while

not clearly describing those needs with an acceptable level of specificity required by Commission guidelines. For example, the CSU San Diego proposal stated in general terms:

> *The gap between the achievement of students of color and low socioeconomic status and that of their privileged counterparts continues to plague California PreK-12 schools, despite some gains associated with the standards-based reform efforts. The state's community colleges continue to struggle to improve their transfer rates to an acceptable level. The struggles of these two segments of the California education system serve to limit the opportunities for educational, social, and economic and societal well-being of the State of California. (*San Diego State University Proposal, 2006, page 3)

The above program rationale does not reference or connect specific school achievement measures and community college transfer data to the magnitude of leadership challenges. Further, the rationale does not reference a level of community college transfer that the faculty at CSU San Diego would consider acceptable for its particular region. The case for CSU educational doctoral proposals could be made more compelling through the inclusion of statistical evidence quantifying the challenges confronting school and community college administrators and how administrators with advanced leadership skills might more effectively manage public schools and colleges and lead district-level reform efforts to improve student-learning outcomes. Because the CSU is a regional system, the Commission recommended that evidence of need be region-specific.

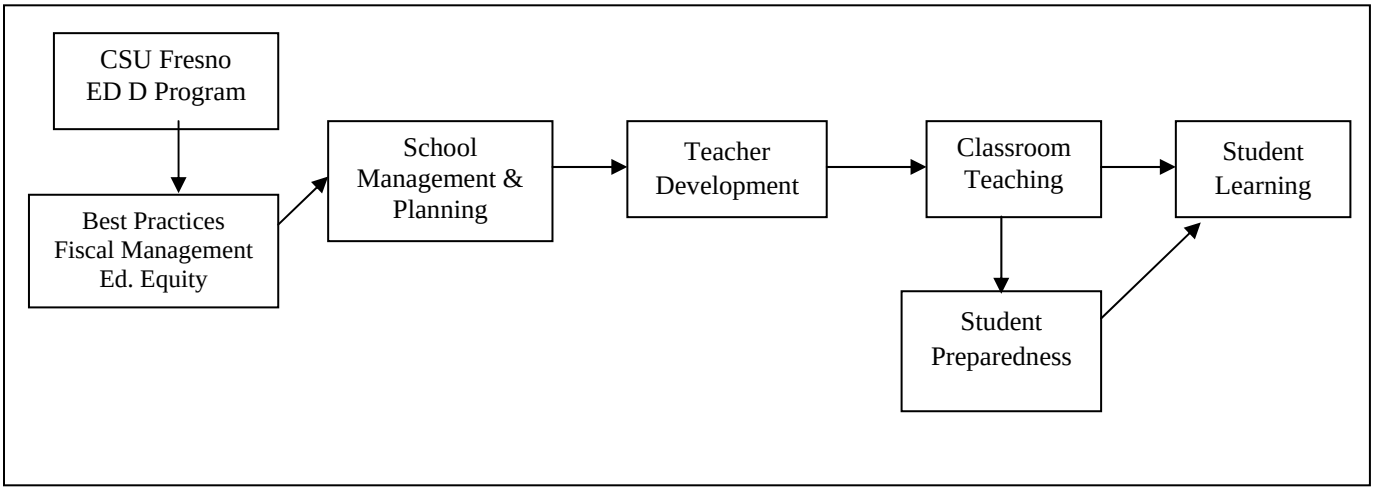
The following example was used to illustrate to the CSU how such data might be used:

> Suppose that a particular region of the State is marked by (1) high teacher turnover, (2) low student performance, (3) significant student attrition, (4) low-college going, (5) inadequate classroom and laboratory facilities, (6) significant numbers of English-language learners, (7) a high proportion of district teachers who are not fully credentialed, and (8) chronic unemployment among certain ethnic/racial groups. An important formative task would be to more clearly define challenges by reporting statistical evidence. For instance, regional Academic Performance Index Scores (API) could be used as a measure of regional school performance, historical UC and CSU freshman participation rates could be used to assess college/university going, and dropout rates and California high school exit examination performance by ethnicity and gender could be used to asses the magnitude of regional student attrition.

Appendix D contains an example of how a proposal might appropriately connect specific school performance challenges to specific aims of a doctoral program. The example illustrates the manner in which a particular educational leadership program is expected to positively impact public schooling in the Fresno valley region. The *path analysis diagram* in Display 4 provides a schematic representation of this connection.

The Commission believes that a path analysis, such as the one depicted in Display 4, could serve three vital purposes with respect to program review. First, and foremost, it could help program developers to think in a more exacting manner about the path by which a doctoral program in educational leadership could influence K-14 student learning. Second, the path analysis could help program developers to be more attentive to various aspects of public schooling that the program might impact. Third, the analysis could help developers identify and select the critical points along the path that short-term, intermediate, and long-term assessments should be undertaken. From Display 4, it would seem that the State would want to know at a minimum if the doctoral training in implementation of best practices and sound fiscal management is enhancing the school management and planning in the Fresno valley region.

DISPLAY 4 Path Analysis Depicting the Indirect Effect of the CSU Fresno Doctoral Educational Leadership Program on Student Learning



The CSU Chancellor's Office has been very helpful in communicating Commission concerns to individual campuses that have submitted proposals. In April 2007, a meeting was held in Sacramento in which the CSU provided Commission staff with proposal revisions and supplemental materials. Based on the revisions and key regional K-12 performance data, Commission staff, as of the writing of this agenda item, have determined that the CSU Fresno and CSU Sacramento proposals now satisfy all proposal review criteria. It is anticipated that Commission staff will complete the final review of the five remaining proposals by the June 2007 Commission meeting.

A workshop will be scheduled later this year with CSU campus planners to help them ensure that future doctoral proposals in educational leadership will respond to all of the Commission's program review guidelines. Commission staff will also continue to assist the CSU in thinking critically about what statistical evidence might be most helpful in establishing a more urgent and compelling need for CSU doctoral programs in educational leadership.

California State University Long-Range Program Plans

Appendix E contains the California State University long-range program plans for the ten-year period, 2007-08 to 2016-17. The plans include 46 additional bachelor's and master's degree programs that were granted *planning authorization* by the CSU Board of Trustees in March 2007. Planning authorization means that the respective CSU campuses can proceed with developing a comprehensive program proposal.

Shown in Display 5 are all proposed graduate programs (see Appendix E) that have been collapsed by Commission staff into six general discipline areas. Nearly half of the proposed programs are in the professional area, which include doctoral programs in education, business management, public policy/administration, and social work. Except for the CSU Maritime Academy, all of the CSU campuses have either submitted proposals for doctoral programs in educational leadership, or they plan to do so. All joint educational doctoral programs with the University of California are scheduled to be discontinued when their last remaining student cohorts have graduated. Program review issues pertaining to CSU educational doctoral programs were discussed in the previous section. However, the CSU's long-range plans raise two additional questions regarding doctoral education:

1. Is there a State need for 22 CSU independent doctoral programs in educational leadership?
2. Is the State best served by the discontinuance of CSU/UC joint educational doctoral programs?

This latter question is relevant because it is important to know for statewide planning purposes why some joint programs might likely be successful, while others are not. Over the next ten years, the CSU anticipates developing eight joint doctoral programs with various UC and private/independent institutions. Of these eight programs, six are being planned for implementation on the CSU San Diego Campus.

DISPLAY 5 California State University Ten-Year Graduate Programs Planned by General Discipline Area

General Discipline Area	No.	PCT
Professional Studies	45	48.4
Health Sciences	15	16.1
Humanities	14	15.1
Physical Sciences	8	8.6
Biological Sciences	8	8.6
Social Sciences	3	3.2
Total Proposed	93	100.0

CSU Joint Doctoral Programs Being Planned

Doctor of Nursing Practice
Doctor of Physical Therapy
Ph.D. in Earth Sciences
Ph.D. in Evolutionary Biology
Ph.D. in English and Children's Literature
Ph.D. in Information Systems
Ph.D. in Hearing Science
Ph.D. in Communication

The CSU long-range plans, similar to the UC plans, reflect an interest in expanding programs in the physical, biological, and health science areas to meet critical societal needs. Labor market data, as well as studies pertaining to the research and development needs of the State and nation, confirm a need for highly skilled professionals and researchers in those three areas. During the remainder of the year, Commission analysts will be assessing CSU graduate plans in greater depth and will review individual graduate program proposals as they are submitted by the CSU Chancellor's Office.

CSU undergraduate programs are not subject to Commission review if all of the following stipulated conditions are met:

- The campus will not have to acquire significant resources for the program to reach a cost-effective level of operation, or there is a demonstrated capacity to fund the program on a self-supported basis.
- The program can be housed adequately without major capital outlay funds.
- The program is consistent with all existing State and federal laws and trustee policy.
- The program will be reviewed thoroughly by the respective campus and by the CSU Chancellor's office.

During the reporting period, all of the CSU undergraduate proposals met the above criteria and, therefore, were reviewed by Commission staff for information purposes only.

California Community College Program Planning

During the State's economic expansion period of the last decade, community college enrollments swelled from 1.38 million in Fall 1993 to 1.75 million in Fall 2002. The growth in student enrollments coincided with significant academic and vocational program expansion of the community college system, with the number of academic and vocational programs totaling 321. In 2003, the State's slowing economy resulted in (1) reduced general fund support for the community colleges, (2) increased student fees, and (3) reduced course offerings. Those conditions made it virtually impossible for community college districts to consider adding new degree and certificate programs. Although the Governor is restoring State funding to the community colleges, enrollments have yet to return to peak levels, and community college districts have proposed few new programs over the past several years. During the 2006-07 reporting period, no community college program proposals were submitted to the Commission for review.

Unlike the CSU and UC systemwide administrative offices, the Community College Chancellor's Office does not prepare long-range program plans for its system. This is because program planning and development is delegated primarily to the 71 community college districts. To support districtwide planning, the Chancellor's Office produces a *System Strategic Plan* in consultation with the districts and external stakeholders and partners. The plan is reviewed and updated annually. It includes two elements that are germane to program planning and review: *Curriculum and Program Development* and *Economic and Workforce Planning*.

The premise underlying curriculum and planning development is that the demands of an ever-changing business and economic environment require employers and students to have access to timely, relevant, and high-quality training programs. The System Strategic Plan includes strategies for ensuring high standards and academic rigor in community college programs. The premise underlying economic and workforce planning is that to plan effectively for future needs, community colleges must be able to identify long-range economic and workforce trends, and to plan accordingly. The System Strategic Plan, therefore, includes strategies to ensure that community colleges have the capacity to analyze local, State, and regional economic trends in order to identify and support emerging career clusters.

Commission staff will meet later this year with program planning analysts of the Chancellor's Office to discuss its System Strategic Plan more broadly. It is anticipated that next year's Commission program report will include a formative appraisal of the level of progress the system is achieving in meeting the strategic goals and objectives outlined in that system's strategic plan.

Conclusion: Toward a Cohesive Statewide Program Plan

The California Postsecondary Education Commission is required by State law to assess and examine the extent to which higher education program planning is responsive to public needs. This agenda item, in particular, represents an initial step forward towards the development of a cohesive statewide program plan for higher education. In the absence of a plan that connects academic and vocational programs to the overall workforce and knowledge needs of the State, it becomes much more difficult to assess the *true* or *complete* merit of individual program proposals that come before the Commission.

During the next academic year, Commission analysts intend to meet extensively with program planners of the public higher education systems to discuss program planning in greater depth. It should be noted that the program plans of the systems are influenced by numerous factors, including: (1) departmental

assessments of program needs; (2) institutional missions and program priorities; and (3) the availability of private and public funds to support program expansion. It is important that all of these factors be well understood before crafting a statewide plan. As noted at the outset of this report, the following three questions must also be addressed:

- What defining characteristics should the plan entail?
- What resources would be required to produce a high-quality plan?
- What specific uses by the higher education systems, the legislature, and the administration should the plan be directed?

Appendix A Summary of the Commission's Program Review Principles and Guidelines

Although each public higher education system in California has a unique mission and social purpose, the systems are united in a most common and fundamental way: each aims to enhance the intellectual, technical, and creative capacity of its student learners. Because advanced knowledge—scientific, technical, and procedural—tends to be organized by fields of study and delivered to students through specific programs, the ultimate success and benefit of the State's higher education enterprise rests with the quality and breadth of institutional degree and certificate programs.

Legislative Mandate

Assembly Resolution 770, Statutes of 1974, established the California Postsecondary Education Commission (CPEC) as the statewide planning and coordinating agency for higher education, with specific mandated planning functions and responsibilities. Primary among the responsibilities given to CPEC is academic and vocational program review. In addition, the Commission is charged with reviewing and commenting on the need for new campuses and off-campus centers.

The Commission's program review responsibilities include the following:

- Review and comment on the long-range plans developed by the public higher education governing boards and make recommendations to the Legislature and Governor.
- Review and comment on the need for new academic, vocational, and certificate programs proposed by the public higher education systems and make recommendations to the Legislature and Governor.
- Evaluate and comment on the program review process of the public higher education systems.
- Identify societal educational needs and encourage institutional adaptability to change.
- Review periodically the availability of continuing education programs for adults and make appropriate recommendations.

The Commission developed a set of principles to guide the program review process. The principles are intended to: (a) safeguard the state against inefficiencies in the allocation of program resources; (b) help ensure that new programs will meet student and societal needs; and (c) ensure that programs are well-conceived and that they will have desired educational and social consequences. As defined in statute, the Commission's role in the review process is primarily advisory. However, in the case of Joint Doctoral Programs involving public and private institutions, the Commission has approval authority.

Recent enhancements to the Commission's review process include greater emphasis placed on the long-range plans of the systems so that staff can consider prospective programs five years in advance of implementation. This has enabled the Commission to alert the systems of potential planning concerns early in the review process before formal proposals are submitted.

Definitions

Academic and Vocational Programs: A series of courses arranged in a sequence leading to a degree or certificate.

Program Plan: A program plan contains, at a minimum, an inventory of the programs offered or projected to be offered by the campuses comprising a higher education system. Also included are proposed timetables for implementation and narrative descriptions of problem areas, program trends, and future needs. In general, plans are prepared for a five-year period and revised and updated annually.

Program Proposal: A document prepared by a campus that describes and justifies the need for a new degree or certificate program. The proposal must address each of the Commission's program review elements.

Program Review Council: An advisory body established to assist Commission staff in matters related to program review and academic planning. The Council consists of representatives from the three public higher education systems, the State Department of Education, and the Association of Independent California Colleges and Universities.

Commission's Program Review Principles and Guidelines

1. Student Demand

Within reasonable limits, students should have the opportunity to enroll in programs of study in which they are interested and for which they are qualified. Therefore, student demand for programs, indicated primarily by current and projected enrollments, is an important consideration in determining the need for a program.

2. Societal Needs

Postsecondary education institutions bear a responsibility for preparing students to meet the State's workforce and knowledge needs. Workforce demand projections serve as one indication of the need for a proposed program. Although achieving and maintaining a perfect balance between supply and demand in any given career field is nearly impossible, it is important nevertheless that the number of persons trained in a field and the number of job openings in that field remain in reasonable balance.

3. Appropriateness to Institutional and Segmental Mission

Programs offered by a public institution within a given system must comply with the delineation of function for that system, as set forth in the California Master Plan for Higher Education. Proposed new programs must also be consistent with the institution's own statement of mission and must be approved by the system's statewide governing body.

4. The Number of Existing and Proposed Programs in the Field

An inventory of existing and proposed programs, compiled by Commission staff from the plans of all systems of postsecondary education, provides the initial indication of apparent duplication or undue proliferation of programs, both within and among the systems. However, the number of programs alone cannot be regarded as an indication of unnecessary duplication. This is because (a) programs with similar titles may have varying course objectives or content, (b) there may be a demonstrated need for the program in a particular region of the State, or (c) the program may be needed for an institution to achieve academic comparability within a given system.

5. Total Costs of the Program

The relative costs of a program, when compared with other programs in the same or different program areas, constitute another criterion in the program review process. Included in the consideration of costs are the number of new faculty required and the student/faculty ratios, as well as costs associated with equipment, library resources, and facilities necessary to deliver the program. For a new program, it is necessary to know the source of the funds required for its support, both initially and in the long run.

6. The Maintenance and Improvement of Quality

Protecting the public interest and trust requires that educational programs at all levels be high quality. Although the primary responsibility for the quality of programs rests with the institution and its system, the Commission, for its part, considers pertinent information to verify that high standards have been established for the operation and evaluation of the program.

7. The Advancement of Knowledge

The program review process encourages the growth and development of intellectual and creative scholarship. When the advancement of knowledge seems to require the continuation of existing programs or the establishment of programs in new disciplines or in new combinations of existing disciplines, such considerations as costs, student demand, or employment opportunities may become secondary.

Appendix B University of California Proposed Degree Programs

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
BERKELEY

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Information	**B.S.**	**1**
Materials Chemistry	B.S.	1
Urban and Metropolitan Studies	B.A.	2
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Accounting	**M.S.**	**2**
Bioengineering	M.Engr.	1
Bioengineering (w/ UCSF)	M.Engr., D. Engr.	1
Communications and Networking	M. Engr.	1
Education Leadership (jt. w/ SFSU, CSU East Bay, SJSU)	**Ed.D.**	**discontinuance planned**
Environmental Science and Management	M.E.S.M.	1
Epidemiology (w/ UCSF)	Ph.D.	1
Internet-Based Design, Manufacturing, and Commerce	M. Engr.	1
Management of Technology	M. Engr.	2
Microelectromechanical Systems	M. Engr.	1
Product Development	Ph.D.	2
Public Health/Journalism	M.P.H./M.J.	1
Public Health/Nursing (concurrent with UCSF)	M.P.H./L.S.	2
Social Welfare/Public Health	M.S.W./M.P.H.	3
Transnational Feminist Studies	M.A./ Ph.D.	1

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
DAVIS

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Range & Wildlands	B.S.	discontinuance planned
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Bioinformatics	**M.S./Ph.D.**	**1**
Chemical Engineering (Jt. Program w/ Middle East Technical University, Turkey)	Jt. Ph.D.	2
Communication	Ph.D.	3
Community Development	Ph.D.	2
Computational Science & Engineering	M.S. & Ph.D.	1
Design	M.F.A.& M.S.	3
Ecology (formerly Plant Ecology) w/ CSU Chico	Jt. Ph.D.	3
Energy Systems, Technology, & Policy	M.S. & Ph.D.	1
Environmental Policy & Management	M.S.	3
Family Nurse Practitioner/Physician Assistant Program	M.H.S.	1
Forensic & Behavioral Sciences (w/ CSU Fresno, Sacramento, Stanislaus)	Jt. Ph.D.	4
Health Informatics	Ph.D.	2
Mathematics (Co-terminal B.S./Credential)	Credential	2
Medical Speech/Swallowing Sciences & Disorders w/ CSU Sacramento	Ph.D.	3
Modernism and Modernity	Ph.D.	1
Nursing (w/ UCSF)	Ph.D.	2
Public Health, Phase 2	M.P.H.	3
SCHOOLS and COLLEGES		
Graduate School of the Environment		3
School of Public Health	M.P.H., M.S., Ph	2

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
IRVINE

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Business Administration	**B.A.**	3
Business Information management	**B.S.**	3
History Subject Matter Preparation	**B.A.**	3
Korean Language & Culture	**B.A.**	3
Biotechnology	B.S.	2
Chinese Studies	B.A.	2
Engineering Design Software	B.S.	2
Latin	B.A.	2
Legal Studies	**B.A./M.A.**	2
Literary Journalism	**B.A./M.A.**	2
Nursing Science	B.S.	2
Statistics	**B.A.**	2
Bioinformatics	**B.S.**	1
Information & Computer Science	B.A.	1
Exercise & Rehabilitation Medicine	**B.A.**	1
Urban Studies	**B.A.**	1
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Criminology, Law & Society	Ph.D.	3
Information & Computer Science & Business Administration	M.B.A./M.S.	3
International Studies	M.A.	3
Molecular Medicine & Therapeutics	Ph.D.	3
Neuroscience	Ph.D.	3
Public Policy	M.P.P.	3
African American Studies	M.A.	2
Clinical Sciences	M.S./Ph.D.	2
Cognitive Neuroscience	Ph.D.	2
Engineering Design Software	M.S./Ph.D.	2
Informatics	M.S./Ph.D.	2
Legal Studies	**M.A.**	2
Literary Journalism	**M.A.**	2
Medical Social Sciences	M.A.	2
Music	M.M.	2
Music	M.F.A.	2
Nursing Practice, Doctor of	D.N.P.	2
Nursing Science	M.S./Ph.D.	2
Pharmaceutical Sciences	M.S./Ph.D.	2
Computer Science and Engineering	M.S./Ph.D.	1
Environmental Engineering	M.S./Ph.D.	1
Environmental Health	Ph.D.	1
Exercise & Rehabilitation Medicine	**M.S./Ph.D.**	1
Master's of Art in Teaching w/ Biological Sciences	M.A.T.	1
Mathematics, Computational & Systems Biology	Ph.D.	1
Physical Therapy (w/ CSU Long Beach)	**D.P.T.**	1
Political Consultancy & Government Relations	**M.A.**	1
Public Health	M.S.P.H., Ph.D.	1
Software	**M.S./Ph.D.**	1
Spanish	M.A.	1
The Americas	**M.A.**	1
SCHOOLS & COLLEGES		
School of Design		3
College of Health Sciences		1
School of Nursing Science		1
School of Public Health		1

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
LOS ANGELES

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Armenian Studies	B.A.	2
Art	B.F.A.	1
Art	**B.F.A.**	**1**
Complex Human systems	**B.A.**	**2**
Dance	**B.A.**	**2**
Information Studies	B.A.	2
Music	B.M.	2
Social Complexity	B.A.	2
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Applied Statistics	**M.S.**	**1**
Bioinformatics	**M.A./Ph.D.**	**2**
Chicana/Chicano Studies	M.A./Ph.D.	2
Communication Studies	Ph.D.	2
Dance	**Ph.D.**	**2**
Design & Media Studies	Ph.D.	1
Education/Management (concurrent degree program)	M.A./M.B.A.	2
Geographical Information Systems	MSGIS	2
Law & Medicine	**J.D./M.D.**	**1**
Law & Philosophy	J.D./M.A.; J.D./Ph.D.	1
Museum & Curatorial Studies	**M.A.**	**1**
Nursing Administration	M.S.N.	3
Public Administration (school-wide)	E.M.P.A.	1
Teaching of Statistics	**M.S.**	**1**
Translational Research	**Ph.D.**	**2**

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
MERCED

Proposed Programs	Degree	Status
Plans for 2007 - 08		
Biochemistry	B.S.	3
Earth Systems	B.S.	3
Global Studies	B.A.	3
Plans for 2008 - 09		
Anthropology	B.A.	3
Electrical Engineering	B.S.	3
Global Arts	B.A.	3
Electrical Engineering	M.S./Ph.D.	1
Physics	M.S./Ph.D.	1
Plans for 2009 - 13		
School of Medicine		1
Chemical Engineering	B.S.	1
Civil Engineering	B.S.	1
Comparative Ethnic & Cultural Studies	B.A.	1
Engineering Economics & Management	B.S.	1
Entrepreneurship	B.A.	1
Global Studies	B.A.	1
Integrative Biology	B.S.	1
Management of Technology	B.S.	1
Spatial Analysis	B.S.	1
World Heritage	B.A.	1
Anthropology	M.A./Ph.D.	1
Chemical Engineering	M.S./Ph.D.	1
Civil Engineering	M.S./Ph.D.	1
Cognitive Science	M.S./Ph.D.	1
Critical Studies	Ph.D.	1
Economics	M.A.	1
Engineering Economics & Management	M.S./Ph.D.	1
History	M.A./Ph.D.	1
Literature & Cultures	M.A./Ph.D.	1
Management	M.S./Ph.D.	1
Museum Studies	Ph.D.	1
Political Science	M.S./Ph.D.	1
Security Studies	M.A./M.S.	1
Sociology	M.S./Ph.D.	1

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
RIVERSIDE

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Bioengineering	B.S.	2
Business Administration: integrated 5-year program	B.S./M.B.A.	4
Civil & Construction Management Program	B.S.	1
Digital Arts (Art & Engineering)	B.S.	1
Engineering (combined 5-year program)	**B.S./M.S.**	**2**
Foreign Languages/Administrative Studies	B.A.	1
Materials Science & Engineering	B.S.	1
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Accounting (AGSM)	M.S.	2
Astrophysics	M.S./Ph.D.	2
Engineering Management	M.A.S.	2
Engineering Management	M.S.	2
Environmental Sciences	M.S./Ph.D.	2
Ethnic Studies	M.A./Ph.D.	4
Evolutionary Biology (Jt. w/ SDSU)	**Ph.D.**	**1**
Executive Master of Business Administration	M.B.A.	2
History of Art	Ph.D.	2
Linguistics	Ph.D.	2
Management	**M.S./Ph.D.**	**2**
Materials Science & Engineering	M.S.	1
Media & Cultural Studies	M.A./Ph.D.	2
Music	Ph.D.	4
Public Policy	M.A./Ph.D.	3
Women's Studies	M.A./Ph.D.	2
SCHOOLS		
School of Law		on hold
School of Medicine	M.D.	1
School of Public Policy	M.P.P./Ph.D.	3

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
SAN DIEGO

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Environmental Systems (Environmental Engineering)	B.S.	3
International Affairs	B.A./M.I.A.	3
Marine Biology	B.S.	1
Marine Science	B.S.	1
Pharmacological Chemistry	B.S.	4
Visual Arts (specialization in Public Culture)	B.A.	1
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Architecture-based Enterprise Systems Engineering	M.A.S.	3
Bioengineering, Electrical & Computer Engineering &	**Ph.D.**	**3**
Biostatistics	**Ph.D.**	**3**
Biotechnology	M.A.S.	1
Business Administration	**M.B.A./Ph.D.**	**3**
Computational Science, Mathematics & Engineering	M.S./Ph.D.	3
Computer Science & Engineering, Mechanical & Aerospace	**M.Eng.**	**3**
Computer Science and Engineering	M.Eng.	1
Critical Gender Studies	Ph.D.	1
Distributed Learning & Leadership	**Ph.D.**	**1**
Earth Sciences -- Geophysics (w/ San Diego State University)	Ph.D.	3
Education Studies	Ph.D.	1
Finance	Ph.D.	1
Human Development	Ph.D.	4
Information Technology Innovation	M.Eng., Ph.D.	1
International Affairs	M.A.S.	3
Latin American Studies -- Cultural Studies	M.A.	3
Management	**Ph.D.**	**3**
Management/Business Education	M.B.A./Ph.D.	3
Mechanical & Aerospace Engineering	M.Eng.	3
Medical Physics	M.S., Ph.D.	1
Pharmacy	D. Pharm	1
Projection/Multi-media/Animation/Film	**M.F.A.**	**1**
Public Health -- concentration in International Public Health	M.A.	1
Solid Mechanics, Mechanical Design, Materials Processing &		
Characterization, Dynamical Systems & Control	**M.Eng.**	**1**
Special Education (w/ San Diego State)	Ed.D.	2
Visual Arts -- Art History, Theory & Criticism	Ph.D.	3
ACADEMIC UNITS		
Center for Law and Public Policy		1
SCHOOLS & COLLEGES		
Seventh College		1

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
SAN FRANCISCO

Proposed Programs	Degree	Status
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Audiology (w/ CSU San Francisco)	AuD.	2
Bioengineering (w/ UCB)	M.Engr., D. Engr.	1
Biological and Medical Informatics	M.S./Pharm.D.	on hold
Cancer Pharmacogenomics	Pharm.D.	on hold
Clinical Informatics & Modeling of Complex Systems	Pharm.D.	on hold
Dental Hygiene	M.S.	3
Epidemiology (w/ UCB)	Ph.D.	2
Global Health Sciences	**Executive M.A.**	**2**
Global Health Sciences	**Ph.D.**	**1**
Health Policy Research -- Trans-disciplinary	Ph.D.	2
Health Psychology & Behavior Neurosciences	Ph.D.	on hold
Health Psychology & Behavior Neurosciences (w/ UCB)	Ph.D.	1
Nursing (w/ UCD)	Ph.D.	1
Physical Therapy (w/ CSU Northridge)	**Jt. D.P.T.**	**2**
Post Baccalaureate Doctor of Pharmacy	Pharm.D.	on hold
SCHOOLS		
School of Global Health Studies		**3**

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
SANTA BARBARA

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Biotechnology and Pharmacology	B.S.	2
Cultural Studies	**B.A.**	**1**
Electrical & Computer Engineering	**B.S.**	**1**
Language, Culture and Society	B.A.	3
Materials Chemistry	**B.S.**	**1**
Mathematics & Empirical Finance	B.S.	1
Native American Studies	B.A.	1
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Applied Linguistics	M.A.	
Art	M.A.	3
Asian American Studies	M.A./Ph.D.	3
Bioengineering & Bio-Physical Science	M.S./Ph.D.	2
Biotechnology and Pharmacology	M.S.	2
Black Studies	M.A./Ph.D.	2
Dance	M.F.A.	2
Earth Surface Sciences	Ph.D.	2
Financial Mathematics & Statistics	M.S.	2
Geophysics	M.S./Ph.D	2
Materials (w/ Ecole Polytechnique, France)	Ph.D.	2
Materials Chemistry	M.S.	1
Technology Management & Commercialization	M.S.	1
Women's Studies	M.A./Ph.D.	1
Writing for Performance	M.F.A.	1
		1

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2007 - 2012
SANTA CRUZ

Proposed Programs	Degree	Status
UNDERGRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Applied Mathematics	**B.S.**	**2**
Biology	B.A.	2
Biomolecular Engineering	B.S.	2
Computer Game Engineering	B.S.	2
Jewish Studies	**B.A.**	**2**
Mechatronic Engineering	**B.S.**	**2**
GRADUATE PROGRAMS		
Proposals added for 2007 update are shown in **BOLD**		
Applied Mathematics & Stocastic Modeling	M.S./Ph.D.	2
Autonomous Systems	M.S./Ph.D.	2
Biomolecular Engineering	M.S./Ph.D.	1
Coastal Policy	M.S.	2
Comparative U.S. Studies	Ph.D.	2
Engineering	M.Eng.	2
Engineering Management	M.S./Ph.D.	1
Feminist Studies	Ph.D.	2
Film & Digital Media	Ph.D.	4
Latin American & Latino Studies	Ph.D.	2
Planetary Sciences	M.S./Ph.D.	2
Remote Sensing/Geographic Information Systems	M.S.	2
Software Engineering	M.S./Ph.D.	2
Visual Art	M.F.A.	2
Visual Studies	Ph.D.	3
SCHOOLS		
School of Management		2

1 suggested for list
2 department review
3 campus administration review
4 CCGA CPEC review

Appendix C Commission's Doctoral Letter to the CSU

State of California ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
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January 10, 2007

Christine Hanson
Academic Program Planning
CSU Office of the Chancellor
401 Golden Shore, 6th Floor
Long Beach, CA 90802-4210

RE: Doctoral Proposals in Educational Leadership

Dear Christine:

The California Postsecondary Education Commission has reviewed two of the seven proposals submitted in November 2006 by the California State University to establish independent doctoral programs in educational leadership. The purpose of this letter, as agreed upon, is to provide you and Karen with comments and suggestions to help ensure that CSU doctoral proposals clearly respond to the Commission's review criteria. Accordingly, our initial comments expressed in this letter are based on a review of the CSU Fresno and San Diego proposals in relation to the seven program review criteria highlighted below.

The Commission's statutory responsibility for reviewing new degree and certificate programs proposed by the state's public higher education systems is expressed in *Sections 66903 through 66904* of the *California Education Code*. The Commission assesses undergraduate and graduate proposals on the basis of how well they comply with the following seven criteria:

- Societal Need
- Student Demand
- Appropriateness to Institutional Mission
- Number of Existing and Proposed Programs in the Field
- Total Costs of the program
- Maintenance and Improvement of Quality
- Advancement of Knowledge

Both the California Legislature and the Administration consider the review of proposals for new educational programs to be among the most important responsibilities of the Commission. Such reviews are intended to help ensure that state operational and capital funds will be spent wisely and produce desirable educational outcomes.

From our initial reading we note that while each campus would tailor part of its curriculum to address specific local and regional challenges, both campuses seem to share a common mission and purpose to prepare educational leaders and administrators to participate more effectively in school reform efforts and to formulate administrative practices that lead to improvements in K-14 instruction and learning. It appears that CSU San Diego is especially interested in enhancing the leadership skills of community college administrators.

Recommendation

The Commission finds that the two proposals comply with program review criteria related to *student demand, appropriateness to institutional mission, number of existing and proposed programs in the field,* and *advancement of knowledge*. It is recommended, however, that the State University describe and clarify how the CSU Fresno and San Diego proposals comply fully with (1) components of the *societal need criterion,* as specified below, (2) the program evaluation component of the *maintenance and improvement of quality criterion*, and (3) description of funds and expenditures associated with the *program cost criterion*. Suggestions for improvement are summarized below.

Societal Need Criteria
"Postsecondary education institutions bear a responsibility for preparing students to meet the State's workforce and knowledge needs. Work force demand projections serve as one indication of the need for a proposed program. Although achieving and maintaining a perfect balance between supply and demand in any given career field is nearly impossible, it is important nevertheless that the number of persons trained in a field and the number of job openings in that field remain in reasonable balance." (Commission Program Review Criteria, Report 06-12)

Commission Concerns Regarding the Connection between Intended Outcomes and Workforce and Knowledge Needs

The Commission's guidelines require that proposals contain a reasonably informed description of the state's workforce and knowledge needs that would be addressed by a new degree program. The first two proposals reviewed by the Commission make general reference to educational leadership needs of the state; however, those needs are not clearly identified and described and, therefore, they lack an acceptable level of specificity required by the Commission's guidelines. For example, the CSU San Diego proposal states in general terms:

> *The gap between the achievement of students of color and low socioeconomic status and that of their privileged counterparts continues to plague California PreK-12 schools, despite some gains associated with the standards-based reform efforts. The state's community colleges continue to struggle to improve their transfer rates to an acceptable level. The struggles of these two segments of the California education system serve to limit the opportunities for educational, social, and economic and societal well-being of the State of California. (*San Diego State University Proposal, 2006, page 3)

The above program rationale does not include any specific school achievement measures nor does it include any statistical information that describe the magnitude of leadership challenges related to student academic achievement and community college transfer. Further, the rationale does not reference a level of community college transfer the faculty at CSU San Diego would consider acceptable for its particular region. The case for CSU educational doctoral proposals could be made more compelling through the inclusion of statistical evidence quantifying the challenges confronting school and community college administrators and how administrators with advanced leadership skills might more effectively manage public schools and colleges and lead district-level reform efforts to improve student-learning outcomes. Because the CSU is a regional system, evidence of need should be region-specific.

Here is an example that we hope will illustrate how such data might be used. Let's suppose that a particular region of the state is marked by (1) high teacher turnover, (2) low student performance, (3) significant student attrition, (4) low-college going, (5) inadequate classroom and laboratory facilities, (6)

significant numbers of English-language learners,(7) a high proportion of district teachers that are not fully credentialed, and (8) chronic unemployment among certain ethnic-racial groups. What specific skills and domain knowledge at the doctoral level might assist administrators and superintendents to more effectively manage schools with such challenges? The first task is to more clearly define challenges by reporting statistical evidence. For instance, regional Academic Performance Index Scores (API) could be used as a measure of regional school performance, historical UC and CSU freshman participation rates could be used to asses college/university going, and dropout rates and California high school exit examination performance by ethnicity and gender could be used to asses the magnitude of regional student attrition.

The Commission wishes to emphasize that its intent here is not to prescribe what specific evidence of need should be included in proposals, rather, this section has been prepared to assist the State University in thinking critically about what statistical evidence might be most helpful in establishing a more urgent and compelling need for CSU doctoral programs in educational leadership.

Commission Concerns Regarding Societal Need--Workforce Demand and Supply Component

The Commission's criteria specify the evaluation of workforce demand and supply data when appraising the need for new graduate professional programs. Display 1 is a template that illustrates one way to array supply and demand data elements related to the *absolute size of the school administrative workforce in a given region*, the *annual number of administrative hires occurring in a region*, the *annual number of workforce separations and leaves in a region*, *doctoral and master's degree production in educational leadership*, and *public community college and K-12 regional enrollment*. These elements are highlighted because the opportunity for the CSU to positively impact the management of public schools in any particular region is tied to them.

Industry supply and demand data could have a number of helpful uses. For instances, the current ratio of regional workforce data to public school enrollment could be applied to the Department of Finance's 10-year enrollment projections to help estimate the number of new administrative hires (industry demand) likely to occur over a ten-year period in a given region, such as the San Diego/Imperial Valley Region and the Fresno Central Valley Region. If the current ratio is, let us say, 5 administrators for every 1,000 students, then this information could be combined with other relevant information to help the CSU determine the annual number of new school administrative hires necessary to keep pace with public school enrollment growth. Estimates of doctoral degree production in educational leadership could be cross-tabulated with estimates of new administrative hires to help the CSU determine the relative opportunity it has to impact the skill and knowledge composition of a given regional administrative workforce

The Commission's review found that the San Diego proposal included projections of student demand, projections of doctoral degree production, and projected demand for community college administrators. No information or discussion was included related to K-12 regional enrollment, the current and projected size of the administrative workforce in the San Diego Imperial Valley Region, and the number of administrative hires required to keep pace with K12 enrollment growth. It is recommended that the CSU use such data as a basis for presenting a more informed discussion of the relative opportunity of the CSU to positively impact the skill and knowledge composition of a given regional workforce.

The CSU Fresno proposal contained no industry supply and demand data. The campus, therefore, is asked to consider collecting such information as a basis for preparing an informed discussion of need, as suggestion in this section.

DISPLAY 1 Public School Administrative Hires, Educational Leadership Doctoral and Master Degrees Awarded, and Public K-12 Enrollment, San Diego/Imperial Valley Region, 2001 to 2006

	2001	2002	2003	2004	2005	2006
Public School Administrative Workforce *(Superintendents of any level Central Office Administrators Principals and Assistant Principals)*						
Public School Administrative Hires *(Superintendents of any level. Central Office Administrators Principals and Assistant Principals)*						
Annual Workforce Separations						
Ed.D. & Ph.D. Degrees in Ed. Leadership Related Fields awarded by Public and Private Institutions in the Region						
Master Degrees in Education Leadership Related Fields Awarded by Public and Private Institutions in the Region						
Public K-12 Regional Enrollment Data						
Community College Regional Enrollment Data						

Maintenance and Improvement of Quality Criteria

"Protecting the public interest and trust requires that educational programs at all levels be high quality. Although the primary responsibility for the quality of programs rests with the institution and its system, the Commission, for its part, considers pertinent information to verify that high standards have been established for the operation and evaluation of the program." (Commission Program Review Criteria, Report 06-12)

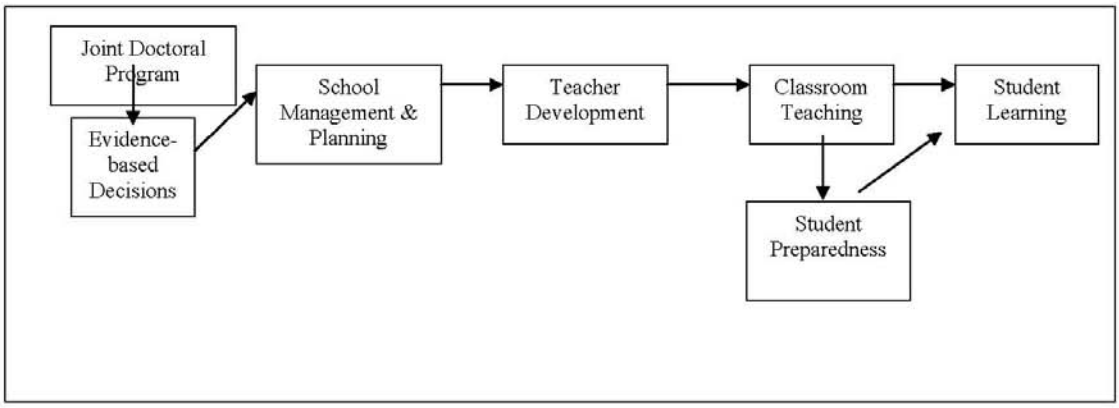
Commission Concerns Regarding the Program Evaluation Component

In considering evaluation plans associated with proposals for new degree programs, the Commission seeks to ensure that plans are reasonable and sound and that they respond to any concerns expressed in legislation. In this regard, *Section 66040.7(b)* of the *California Education Code* calls for the State University to develop education plans that involve, among other considerations, the collection and assessment of "available evidence on the effects that graduates of the programs are having on elementary and secondary school and community college reform efforts and on student achievement." The Commission acknowledges that legislation calls for the CSU, in collaboration with the Department of Finance and the Legislative Analyst's Office, to evaluate the success of doctoral leadership programs. The Commission's interest is in knowing that reasonable formative steps are being taken to ensure that appropriate data will be collected to yield useful and meaningful results, as intended in legislation.

The Commission believes it is possible and appropriate for the State University, given *Section 66040.7(b)* of the California Education Code, to consider how an evaluation plan could be used to assess the indirect effect doctoral leadership programs are intended to have on school management and student academic achievement. Such an evaluation procedure should be based on some theoretical model that connects management practices to schooling. It is readily acknowledged that theoretical models support the practice of evaluation by helping researchers to ask the right questions, to organize findings, and to provide insights into why one would expect various factors to be casually-related.

The *path analysis diagram* shown in Display 2 is presented as an illustrative example. In this hypothetical example classroom teaching and student preparedness are the only factors shown to have a direct influence on student learning. That is, the arrows from those two factors connect directly to student learning. In the example, the joint doctoral program is intended, among other outcomes, to significantly enhance the leadership and decision-making skills of school administrators by providing them with a critical and practical understanding of a planning tool called *evidence-based decision-making*. Evidence-based decision-making is hypothesized to lead to improved school management practices, which in turn leads to enhanced teacher development opportunities, and so on. If all the mediator factors were positively impacted, then learning would be expected to improve.

DISPLAY 2 Hypothetical Path Analysis Depicting the Indirect Effect of a Doctoral Educational Leadership Program on Student Learning



The Commission believes that a path analysis, such as the one depicted in Display 2, could serve three vital purposes with respect to program review. First, and foremost, it would help program developers to think in a more exacting manner about the path by which a doctoral program in educational leadership could influence K-14 student learning. Second, the path analysis is likely to help program developers be more attentive to key mediators that impact both the program and the terminal outcome of enhanced student learning. Third, the analysis could help developers decide at what critical points along the path that assessments should be undertaken. From Display 2, it seems quite obvious that the State would want to know at a minimum if the practice of evidence-based decision-making is enhancing the practice of school management and planning. Although the State University has several options available for evaluating the effects of doctoral leadership programs, the Commission request at a minimum a description of the steps the CSU is taking to collect and assess the programs, as specified in *Section 66040.7(b) of the Education Code.*

Program Costs Criteria

"The relative costs of a program, when compared with other programs in the same or different program areas, constitute another criterion in the program review process. Included in the consideration of costs are the number of new faculty required and the student/faculty ratios, as well as costs associated with equipment, library resources, and facilities necessary to deliver the program. For a new program, it is necessary to know the source of the funds required for its support, both initially and in the long run." (Commission Program Review Criteria, Report 06-12)

Commission Concerns Regarding Program Costs

As noted above, the Commission's program review guidelines require institutions to identify the fund sources required for a campus to offer a new program, both initially and in the long run. Therefore, the Commission would appreciate receiving a five-year resource table that shows total anticipated program costs by expenditure category, and anticipated revenues by funding source. Funding source should include FTES funds, doctoral student fee revenue, professional fee revenue, financial aid set-aside funds, capital outlay funds, and funds from private sources. Expenditure categories should include administrative, instructional, library, student support services, and capital and maintenance expenses.

Next Steps

In order to expedite the finalization of the Fresno and San Diego reviews, the Commission would appreciate receiving clarifying information responding to the issues raised here by February 7, 2007, if possible.

As noted earlier, this letter follows up on our meeting in November 2006 when we discussed the best process for ensuring a timely and thorough assessment of the Ed.D programs that the CSU submits for the Commission's review. At that time, we agreed to review the Fresno and San Diego proposals and to provide feedback to you on how well the proposals respond to the Commission's criteria. Since then, CSU has forwarded several additional proposals for Ed.D. programs on other CSU campuses and we expect more in the future.

As noted in regard to the Fresno and San Diego proposals, the submitted documentation provides significant information about the proposed Ed.D. programs that is germane to the Commission's criteria. However, one difficulty that slows our assessment of Ed.D. proposals is that they are not specifically drafted to address the Commission's evaluation criteria. Therefore, to expedite the assessment of the remaining Ed.D. program proposals, the Commission requests that the CSU augment its Ed.D. program submittals with supplemental letters for each proposal that identifies what information within the proposals specifically addresses each of the seven Commission evaluation criteria. By providing specific direction to information in the submittal documentation that demonstrates that the proposals satisfy the Commission criteria, CSU can greatly improve the timeliness of these reviews. Additionally, where information supplemental to the proposal is needed to clarify how Ed.D. programs meet Commission criteria, we encourage that it be included as part of these letters.

In order to promote timely review of the Ed.D. programs that have already been submitted to us, we request that letters augmenting your earlier submittals be submitted as soon as possible, preferably within the next month. We understand if the workload involved may preclude meeting this time frame, and if so, please advise us as to when you can provide us with these letters.

As always, the Commission looks forward to working collaboratively with the CSU to complete these reviews and ensure that they provide insights useful to delivering the best Ed.D. programs.

Attached for your information, as Appendix A, is a summary of the Commission's program review principles and guidelines.

Sincerely,

Stacy Wilson

Stacy Wilson, Ed.D.
Senior Researcher/Policy Analyst

Jessika Nobles Jones
Policy Analyst

Attachment

cc: Karen Zamarripa
California State University Governmental Relations Office

Ralph Wolff
Western Association of Schools and Colleges

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Murray Haberman, Executive Director
California Postsecondary Education Commission

Peter McNamee, Assistant Director
California Postsecondary Education Commission

Appendix D Illustrative Example of Connecting Doctorate Instructional Goals to Societal Needs

California State University campuses share a common mission and purpose to prepare educational leaders and administrators to participate more effectively in school reform efforts and to formulate administrative practices that will lead to improvements in K-14 instruction and learning. As noted in the proposal, the current CSU Fresno Joint Educational Doctoral Leadership Program is to be replaced with the proposed CSU Fresno independent doctoral program. The rationale for the proposed program, like the rationale for the joint program, is tied in part to an "urgent need for well-prepared education administrators to lead public K-14 reform efforts" (CSU Fresno Proposal, 2006, page 1). The following school performance measures offer empirical evidence of need:

- Standardized Testing Results (STAR)
- Academic Performance Index Results (API)
- California High School Exit Exam Results
- Scholastic Assessment Test Results (SAT)
- American College Test Results (ACT)
- County Expulsion, Suspension, and Truancy Information

Commission staff retrieved county-level performance data for selected counties served by CSU Fresno, which include Fresno, Madera, Kings, and Tulare counties. The data show that many districts are faced with low or marginal student performance. When the performance measures are disaggregated by selected demographic factors such as ethnicity, gender, socioeconomic status, and English-language learning status, the challenges facing local schools become even more demonstrative. Given these performance results, the need for CSU doctoral programs in education leadership can be made more transparent by connecting program goals and objectives to the school performance data. What precisely is this connection with respect to the proposed CSU Fresno doctoral program? As described, the Fresno program is intended to enhance the ability of educational leaders to:

- Implement best practices
- Provide sound fiscal management
- Promote equitable educational opportunities

The program rationale can be stated as follows: if school administrators are provided with doctoral-level instruction and research experience that will assist them in (a) implementing best practices; (b) managing schools in a more fiscally-sound manner; and (c) promoting equitable educational opportunities, then more favorable institutional and school environments would be created and sustained within which student learning could flourish. The potential for the program to impact school reform positively can be understood or revealed by observing the background and employment positions of educators and administrators that would likely value and enroll in the CSU independent doctoral program. Shown on the next page are selected employment positions of educators and administrators that graduated from the Fresno-UC Davis joint doctoral program in educational leadership:

- School Principal
- School Vice Principal
- District Superintendent
- Associate Superintendent
- Assistant Superintendent

- Community College President
- Community College Departmental Chairperson
- Associate Professor
- Assistant Professor

If the proposed independent doctoral program is successful in attracting and graduating educational leaders with backgrounds similar to those who have enrolled in and graduated from the joint doctoral program, then one could argue that the potential for the Fresno independent doctoral program to have a positive program impact is quite favorable. A careful review of the degree requirements for the proposed doctoral program also demonstrates the potential for positive program impact. As noted in the proposal, doctoral candidates would be required to (a) pass a qualifying examination; (b) successfully prepare and defend a doctoral dissertation; and (c) successfully complete a core curriculum that includes coursework in program evaluation and assessment, strategic planning, curriculum and school reform, educational leadership, resource and fiscal planning, data-driven decision-making, theories of cross-cultural education, and qualitative and quantitative research methods.

Under the scenario of continued low student progress, it would be the responsibility of educational doctoral planners to use performance results as feedback to fine-tune their program until more positive school outcomes are achieved and sustained.

Appendix E California State University Campus Academic Plans: 2007-08 to 2016-17

Attachment A
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CAMPUS ACADEMIC PLANS
Summary of Proposed Program Projections
2007-2008 through 2016-2017

(Bold type denotes new proposed program projections)

BAKERSFIELD

2007	MS	Computer Science
2008	EdD	Education
2009	BS	Computer Engineering
	BS	Electrical Engineering
	BS	Engineering

CHANNEL ISLANDS

2007	BA	Communication
	BA	Early Childhood Studies
	BS	Nursing
2008	BA	Chicano/Chicana Studies
	BS	Applied Physics
	MFA	**Art***
	MA	English
2009	BA	Anthropology
	BS	Kinesiology**
	BA	Philosophy
	MS	Biology
2010	**BA**	**Social Justice***
	BS	Computer Engineering**
	MA	History
2011	BA	Geography and Urban Studies
2012	BA	Social Work
	MPA	Public Administration
	EdD	Education
2013	MS	Nursing

CHICO

2007	**BA**	**Chemistry***
	BS	Biochemistry
	BS	**Concrete Industry Management (*Pilot*)***
2009	**MS**	**Engineering Management***
	EdD	Education

DOMINGUEZ HILLS

2008	BS	Exercise Science

DOMINGUEZ HILLS (continued)

	BS	Sports, Entertainment, and Hospitality Management
	MS	**Applied Biotechnology Studies***
2009	MA	Communication Disorders
	MA	Spanish
	MPH	Public Health
	EdD	Education
2010	MS	Exercise Science

EAST BAY

2007	MS	Biostatistics (MS)
2008	EdD	Education

FRESNO

2007	EdD	Education
	DPT	Physical Therapy
2008	**BS**	**Biomedical Physics***
	EdS	**School Psychology***

FULLERTON

2007	MSW	Social Work
	EdD	Education
2008	BS	Software Engineering
	MS	**Applied Biotechnology Studies***
	MS	Engineering Management
	MS	Higher Education

HUMBOLDT

2009	EdD	Education

LONG BEACH

2007	EdD	Education

*** Newly proposed for Trustees "planning authorization." Implementation subject to review and approval by the Chancellor.**
**** Projected implementation dates adjusted to meet societal need, student demand, or resource requirements.**

Attachment A
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2008	**BA**	**Design***
	MA	**Global Logistics*** (Pilot Conversion)
	MFA/BFA Theater Management*	

LOS ANGELES

2007	MFA	Film, Television, and Theatre
	MS	Technology
2008	**BA**	**Computer Science***
	BA	**Urban Studies***
	MS	**Applied Biotechnology Studies***
	MS	Environmental Science
	EdD	Education
2009	**DNP**	**Doctor of Nursing Practice*** (joint doctoral partner to be determined)
	PhD	**Forensic Sciences*** (joint doctoral partner to be determined)

MARITIME ACADEMY

2007	MS	Global Supply Chain Management and Security
2008	BS	Global Studies and Maritime Affairs
	BS	Science and Mathematics

MONTEREY BAY

2007	BA	Psychology
	BS	Biological Sciences
	MS	**Management and Information Technology*** (pilot conversion)
2008	BS	Computer Science and Information Technology**
	BS	**Mathematics*** (pilot conversion)
	MA	Applied Ethics and Communication (change in projected degree title)
	MS	Instructional Science and Technology (change in projected degree title)
2009	BA	Human Development
	MA	Critical and Applied Multicultural Studies **
2010	MS	Nursing
	EdD	Education

NORTHRIDGE

2007	**BA**	**Central American Studies*** (pilot program)
	BS	Finance
	BS	Management

NORTHRIDGE (continued)

	BS	Marketing
	MS	Computer Engineering
	MS	Software Engineering
	MS	Structural Engineering
	AuD	Audiology (with UCLA)
2008	**BS**	**Applied Mathematical Sciences***
	BS	**Engineering Management***
	BS	**Information Technology***
	MA	**Humanities***
	MS	**Marketing and Design Management***
	MS	**Taxation***
	MPP	**Master of Public Policy***
	EdD	Education
2009	**MS**	**Quality Management***
	DPT	**Doctor of Physical Therapy*** (with UC San Francisco)
2010	**BS**	**Industrial and Quality Management***

POMONA

2007	BS	Plant Science
	MA	Psychology
	MS	Accountancy
2008	**MS**	**Applied Biotechnology Studies***
2009	EdD	Education

SACRAMENTO

2007	AuD	Audiology
	EdD	Education

SAN BERNARDINO

2007	BS	Information Systems and Technology
	MS	Accountancy
	MA	Child Development
	MA	Music
	MS	Special Education
	EdD	Education
2008	**BS**	**Bioinformatics***

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**** Projected implementation dates adjusted to meet societal need, student demand, or resource requirements.**

	MFA	**Creative Writing***
	MFA	**Studio Art***
2010	BS	Civil Engineering
	BS	Electrical Engineering
	BS	Mechanical Engineering
	MS	Kinesiology

SAN DIEGO

2007	BA	American Indian Studies
	BS	Construction Engineering
	EdD	Education
	PhD	Earth Sciences (Geophysics) (with UC San Diego)
2008	**BFA**	**Graphic Design***
	MA	Translation and Interpreting**
	MS	**Bioinformatics*** (PSM+ pilot Program)
	MFA	**Film, Television, and Digital Media***
	PhD	Evolutionary Biology** (with UC Riverside)
	PhD	**English and Children's Literature*** (with UC Riverside)
	PhD	**Information Systems*** (with Claremont Graduate University)
2009	EdD	Special Education (with UC San Diego)
	PhD	Hearing Science** (with UC San Diego)
2010	PhD	Communication** (with Fielding Graduate Institute)
	PhD	Social Work** (with USC)

SAN FRANCISCO

2007	BA	American Indian Studies
	EdD	Education

SAN JOSÉ

2007	BS	Psychology
2008	BA	Foreign Language and International Economics
	EdD	Education

SAN LUIS OBISPO

2008	**MAE**	**Master of Agricultural Education***
	MA	**Economics***
	MS	**Polymers and Coatings*** (Pilot Conversion)
2010	EdD	Education

SAN MARCOS

2007	BA	Anthropology
	BA	Applied Physics
	BA	Environmental Studies
	MPA	Public Administration
	MSW	Social Work
2008	BA	Arts and Technology
	BA	**Digital and Media Arts***
	BA	Global Studies
	BA	Philosophy
	MS	Chemistry**
2009	**BA**	**Child and Adolescent Development***
	BA	**Music***
2010	EdD	Education
2011	BA	Social Sciences**
	BA, MA	Spanish**
	BA	Special Major**
	BA	Visual and Performing Arts**

SONOMA

2008	**BA**	**Global Studies***
2010	EdD	Education

STANISLAUS

2008	**MS**	**Nursing***
	EdD	Education

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**** Projected implementation dates adjusted to meet societal need, student demand, or resource requirements.**