

Access to Excellence
Cal Poly Summary Report
March 2007

As the Cal Poly community considers the challenges associated with continuing to provide “Access to Excellence” in the new century, it is important that we start from an understanding of:

- the University mission,
- the societal context of a polytechnic university, and
- the institutional priorities to which we should assign greatest importance and urgency.

In the initial phase of the campus “Access to Excellence” planning conversation, we have made significant progress in arriving at shared understandings regarding each of these points.

The Purposes of the University

With the leadership of the Academic Senate and the active participation of many members of the campus community, Cal Poly has revised its mission statement and developed a formal statement of university learning objectives.

The mission statement emphasizes Cal Poly’s distinctive character as a polytechnic, comprehensive university, committed to an educational philosophy that calls for students to “learn by doing,” through active forms of learning in and outside of the classroom. Here is Cal Poly’s revised mission statement:

Cal Poly fosters teaching, scholarship, and service in a learn-by-doing environment where students and faculty are partners in discovery. As a polytechnic university, Cal Poly promotes the application of theory to practice. As a comprehensive institution, Cal Poly provides a balanced education in the arts, sciences, and technology, while encouraging cross-disciplinary and co-curricular experiences. As an academic community, Cal Poly values free inquiry, cultural and intellectual diversity, mutual respect, civic engagement, and social and environmental responsibility.

Cal Poly faculty members work with students to ensure their attainment of key learning objectives. These objectives include the capacity to “think critically and creatively, communicate effectively, demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of the arts, sciences, and technology.” They also call for graduates to be able to “work productively as individuals and in groups, use their knowledge and skills to make a positive contribution to society, and make reasoned decisions based on an understanding of ethics, a respect for diversity, and an awareness of issues related to sustainability.” Finally, they call for graduates to take away from their years at the University the ability and inclination to “engage in lifelong learning.”

The effective implementation of Cal Poly's educational mission depends upon recruitment, retention and ongoing renewal of dedicated teacher-scholars who engage in scholarly work, promote collaborative learning including learn-by-doing and inspire students to do well. Cal Poly also recognizes the important supportive roles played by staff to sustain the teaching and learning activities on campus.

The importance of scholarship was recognized formally in the mission statement of the California State University, following the 1990 revision of the California Master Plan for Higher Education. As a result of that revision, achieved in part through advocacy by the members of Cal Poly's President's Cabinet, the state Education Code was amended to include the following language: "Research, scholarship, and creative activity in support of its undergraduate and graduate instructional mission is authorized in the California State University and shall be supported by the state."¹

The intent behind this revised Education Code language was captured in the 1989 report of the Joint Committee for Review of the Master Plan for Higher Education, "California Faces . . . California's Future." That report stated:

We intend that the state support research, scholarly and creative activities at the California State University if they are of the following kinds: first, scholarly and creative activities in the service of the university's instructional mission . . . second, . . . research undertaken as part of the intellectual work of course and program – that is research which directly involves students [and] third, . . . research undertaken at the California State University when it studies an issue or problem relevant to the changing social, environmental, economic or cultural life of any of California's many regions.²

It is clearly important that the University support the scholarship, creative activity and research of its faculty, especially those activities involving teaching and academic programs and those benefiting California. The teaching of students, both undergraduate and graduate, through participation in research, can be an important component of Cal Poly curricula and help in the attainment of educational objectives.

The Changing Societal Context

California's landmark 1960 Master Plan for Higher Education provided for low-cost access to higher education for all Californians qualified and motivated to take advantage of this educational opportunity. The Master Plan specified separate and distinctive missions for the University of California, The California State University and the Community Colleges. The State in turn invested significant resources in the dramatic expansion of public universities and colleges, committed annual budget resources to keep the cost to students at a minimum and recruited a gifted faculty. In large measure as a result of this visionary plan, California became an engine of scientific, technological and

¹ Education Code: Section 66010.4 (b)

² "California Faces . . . California's Future," pp. 10-11.

artistic innovation for the entire nation and the size of its economy today ranks among the top ten countries in the world.

While in many respects California realized the promise of its master plan beyond the most ambitious dreams of its authors, the State's ability to continue to deliver on that promise has been threatened by several profound developments:

- Rapid population growth, from 15.7 million in 1960 to over 36 million today: This has taxed the State's ability to keep pace with an array of fundamental needs –health care, public safety, transportation, housing, environmental quality and education at all levels.
- Change in the demographic profile of the population: An influx of migrants from around the globe, but especially Mexico and Latin America, combined with growth of California's Hispanic, African American and Native American populations, has brought into the education system many students with special needs for educational information, guidance and support. Our schools have fallen behind in serving these students and California's rates of graduation from high school, college and university today rank among the lowest in the country.
- The fiscal capacity of the State to meet societal needs and in particular its ability to fund public higher education is under growing stress. Higher education today competes with corrections for the small and diminishing discretionary portion of the state budget not committed to other purposes by virtue of state or federal mandates. Furthermore, following passage of Proposition 13 in 1978, funding from property taxes has eroded, leaving the State more dependent on other sources -- especially personal and corporate income taxes. These revenue sources are subject to sometimes dramatic volatility associated with the business cycle. This has resulted in significant unpredictability in state funding for higher education.
- Our understanding of teaching and learning has grown over the years but State higher education funding models have not changed adequately in response. We know, for example, that the continuous professional renewal of faculty through scholarship and creative activity is critically important to their ability to be effective teachers. We also understand that students flourish educationally where they are given opportunities to apply their learning through projects, research and other applied experiences. Yet State capital funding models for the CSU do not recognize adequately the need for dedicated research and project space. Moreover, the state's general fund budget formulas for the CSU do not acknowledge sufficiently the funding required to support active learning in labs and other settings and to allow faculty dedicated time for scholarly and creative activity.
- California's competitive advantages have diminished as a result of rapid population growth, changes in the state's demographic composition and State budget instability. In addition, the past few decades have witnessed rapid growth of increasingly competitive economies in the European Union, Pacific Rim, China and India. The

growth of these competitor states has been supported by aggressive investment in higher education. China, for example, is developing a number of “world-class” universities over a short period of time, in the context of comprehensive overall reform and expansion of its higher education system.

Any plan for ensuring continued access to excellence in the CSU must take into account the challenge of supporting teaching, research, scholarship and creative activity in a resource-constrained environment, to ensure that California and its people remain globally competitive.

Institutional Priorities

From Cal Poly’s inception in 1901, it has had a special responsibility to support the economic welfare and progress of the State of California. In today’s competitive global economy, the State’s economic success depends on its ability to remain a leader in scientific and technological innovation. This in turn requires a world class science and technology workforce and an educated, technologically literate citizenry with an appreciation of the challenges of remaining competitive in a rapidly changing global environment.

In this broad context, Cal Poly has a special role to play, as a polytechnic, comprehensive university. It is important that the CSU System continue to recognize and support Cal Poly’s distinctive mission, the special resource needs associated with it, and their implications for funding formulae, space formulae and workload formulae.

Through the Access to Excellence planning process, we will identify high-priority institutional goals and the steps necessary to achieve them. At the outset, a number of key priorities are already clear:

- **Outreach and Awareness:** Access to a Cal Poly polytechnic education requires strong academic preparation, including solid grounding in science and mathematics. We must review our efforts to reach out to P-12 students and their parents and find ways to encourage more students to secure the requisite academic preparation, particularly first-generation college students. It is critically important that we bring a broad spectrum of backgrounds and experiences to our campus by recruiting a diverse student body.
- **Science and Mathematics Education:** As a recent California Council on Science and Technology report has noted, the State faces a growing shortage of K-12 teachers qualified to teach science and mathematics. Cal Poly is expanding its efforts to prepare and support the ongoing professional development of science and math teachers. We must continue to make this a priority.
- **Programs and Curricula:** The pace of change in science and technology is rapid and accelerating. It is fueling extraordinary global economic development and population growth, which brings with it numerous potential negative side-effects: resource

shortages, climate change, and environmental degradation. With the aid of our university, college and departmental advisory councils we must assess the implications of these trends in the external environment for the programs we offer, their curricula, and the methods by which those curricula are delivered.

- **Liberal Education:** Graduates of a polytechnic university such as Cal Poly must develop strong skills and understanding not only in the technical disciplines but also in the liberal arts. Programs of study must be integrated so that communication skills, global perspectives, creativity, and critical thinking are all developed to prepare students for successful careers and rich lives.
- **Student Success and Educational Accountability:** We must assess the effectiveness of our efforts to foster student success and strengthen them where possible. We start from the propositions that rates of retention can be increased, time to degree minimized and relevance and quality of learning ensured, by:
 - focusing on learning outcomes and assessment,
 - implementing enhanced advising,
 - integrating and streamlining curricula,
 - preserving and expanding opportunities for hands-on learning, including project based learning, and
 - assessing educational outcomes, applying the results of assessment to program improvement.
- **Faculty/Staff Excellence:** Student success depends on faculty and staff excellence. To recruit and retain high quality faculty, we must provide them opportunities and resources to work at the frontiers of their fields, state of the art teaching technologies, and adequate compensation. Robust graduate programs are a key element in faculty excellence. Faculty research and scholarship nurture quality graduate programs, while quality graduate programs help sustain faculty research and scholarship. Similarly, student success depends on professional and skilled staff who provide support services critical to the teaching-learning process and to the co-curricular experiences that enable students to flourish both academically and personally.
- **Campus Learning Environment:** For Cal Poly to continue to provide access to a relevant and competitive education, students and faculty must have superior library resources, superior information technology capability and teaching technology, advanced laboratories and advanced classrooms. We will therefore review our campus Master Plan and academic resource plans to ensure they are responsive to student and faculty needs.
- **Resource Strategies:** We must acknowledge that the State, already struggling to meet basic societal needs in a number of areas, will not be able to provide all the resources required to guarantee uninterrupted access to excellence at Cal Poly. We will continue to pursue a resource strategy emphasizing “shared responsibility” for the campus, including contributions from the state, from individual and corporate donors and from students and parents. As an important dimension of the Access to

Excellence planning effort at Cal Poly, we will update our advancement priorities and lay the foundation for a new comprehensive campaign.

Through extensive departmental, college and university conversations, Cal Poly has already made significant progress in assessing its efforts to provide Access to Excellence and in identifying priorities for future campus development. We will build upon this foundational work over the next year to ensure that we have a clear vision for our educational programs, for the further development of the campus and for the resource strategies required to achieve and sustain our mission as a university.

Other Cal Poly reports on Access to Excellence are available at:

<http://www.academicprograms.calpoly.edu/specialinitiatives/accessexcellence/>