Report

Western Association of Schools and
Colleges Accreditation Visit
California Polytechnic State University
at San Luis Obispo

March 28-31, 2000

**Report on the Western Association of Schools and Colleges (WASC)
Accreditation Visit to California Polytechnic State University at San Luis Obispo
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EXECUTIVE SUMMARY

This report is a reflection of an evolving pattern of thought in accreditation circles nationwide. Institutions with excellent reputations, fine student bodies, good leadership, and a history of positive accreditations should be allowed an alternate accreditation visitation process that will encourage the institution and the visitors to use the institution's planning as a basis for inquiry and for filing a report. Such an approach was employed in connection with the WASC visit to Cal Poly, which, by agreement, established the theme for the visit as "Cal Poly as a Center for Learning." Cal Poly unpacked the concept by identifying three overlapping and integrating components or environments: (1) intellectual environment (content of what we do); (2) physical environment (context of what we do); and (3) campus climate (social and psychological environment for what we do). As a framework for analysis the three spheres of activity and researchable questions that derive from those spheres, served to allow a thorough examination of Cal Poly and its role as a center for learning.

Although these three spheres served well for institutional self-analysis, they do not convert as well into concepts on which implementation strategies for changing and improving the institution could be built. Since the WASC visitation team report deals not only with reflective institutional self-analysis, but implementation and institutional change, this report is organized around patterns of thought selected from Cal Poly documents and conversations with members of the Cal Poly family.

Cal Poly has a correctly confident sense of identity. It is a proud, public, residential, mostly undergraduate, polytechnic university, with a very competitive admissions program, a commitment to service, a commitment to learning by doing, a commitment to learning through problem-based analysis, and a commitment, as part of the CSU system, to pursuing the noble purpose of providing opportunities in key fields for the populations of California.

Much planning has been done and much has been accomplished in pursuit of this vision. Despite these accomplishments, there is still a sense, even among members of the Cal Poly Steering Committee, that there may be more planning and discussion than actual accomplishment. The visiting team has offered some thoughts on how Cal Poly can translate excellent planning into implementation, without the presence of a crisis and against the countervailing inertia created by Cal Poly's enrollment and the idyllic setting of San Luis Obispo.

The most important area for implementation is student learning. Cal Poly is committed to its undergraduate students and much attention is focused on teaching. The visiting team found less evidence, however, to support the proposition that learning itself is a serious and sustained topic of inquiry. In this report the visiting team offers some observations on using the body of research about learning that is available today to establish a culture of inquiry with respect to learning, strengthen accountability with respect to learning, and establish mechanisms for continuous improvement of student learning.

An ingredient in the learning process is diversity, which is a special challenge for Cal

Poly. San Luis Obispo is an isolated community; Cal Poly's academic programs typically require higher academic preparation in mathematics and sciences, where K-12 preparation may be weakest; and Proposition 209 has made matters more complicated for all public institutions in California. Cal Poly has done a great deal of thinking about diversity, but there is much work to be done. In this report, the visiting team offers some comments on improving conditions of diversity.

While Cal Poly has a strong esprit de corps, as well as pride and confidence in its role as a caring, learn by doing, undergraduate institution, there are observable tendencies toward a climate of "victimization." Some of these views are directed at CSU, which, ironically, seems very supportive of Cal Poly. Some of these tendencies are based on funding which, also ironically, appears to be better for Cal Poly than many other institutions, especially taking into account the Centennial Campaign, the potential for increased state funding through a special disproportionate allocation for high-cost programs, and the potential for generating additional external funding for research. The visiting team concluded that efforts should be made to minimize these distractions and to redouble efforts to focus attention on the challenges that are directly within the control of the Cal Poly family.

HISTORY

California Polytechnic State University, San Luis Obispo (Cal Poly) began as a vocational high school in 1901, added a junior college in 1927, became a three-year institution in 1936, and evolved into a baccalaureate-granting institution in 1940. Master's degree programs were added in 1949. In 1972, it became a university.

The university's orientation was established by the original legislation and has not been altered in major ways since. Its emphasis is undergraduate education in applied technical and professional fields (engineering, agriculture, architecture, and business). It has an enrollment of approximately 16,500 students 15,300 FTE), which has been relatively stable for several years. The pressure for admission is very high which reflects the perception of the quality of the university held by the public. Students come primarily from the state of California with geographic distribution statewide.

The university is part of the California State University system of 23 campuses operating under the governance of the Board of Trustees and the administrative control of the Office of the Chancellor.

THE WASC VISIT IN 2000

The Western Association of Schools and Colleges (WASC) visit to California Polytechnic State University at San Luis Obispo (Cal Poly) in March 2000 was conducted by a WASC Visitation Team (team) composed of Patricia Breivik, Dean of the University Library at San Jose State University; Jean Chu, Assistant to the President Emerita, Stanford University; John W. Harris, Orlean Bullard Beeson Professor of Education at Samford University; Michael Jackson, Vice President for Student Affairs at the University of Southern California; Horace Mitchell, Vice Chancellor, Business and Administrative Services, University of California at Berkeley; Jane S. Permaul, Assistant Vice Chancellor for Student Affairs Administration at the University of California at Los Angeles; Karen Maitland Schilling, Professor of Psychology at Miami University; Terry Wildman, Director of the Center for Excellence in Undergraduate Teaching at Virginia Polytechnic Institute and State University; and Gerald L. Bepko, chair of the team and Indiana University Vice President for Long-Range Planning and Chancellor of Indiana University-Purdue University Indianapolis. The team's report is based on the visit as well as a review of documents developed by Cal Poly in a lengthy planning process. That planning process was led by Cal Poly President Warren Baker, Cal Poly Provost Paul Zingg, and Cal Poly Vice Provost for Academic Programs and Undergraduate Education W. David Conn, who served as the WASC accreditation liaison officer. The principal work of the self-study and planning was conducted by a steering committee whose membership is set forth in Appendix A, p. **Error! Bookmark not defined.**. This steering committee was supported by eight subcommittees, the scope and membership of which are set forth in Appendix B, p. **Error! Bookmark not defined.**.

The WASC visitation team would like to pay special tribute to the academic leadership of Cal Poly for its hard work and creativity and their excellent preparation for the visit. This

includes not only Professors Baker, Zingg, and Conn, but scores of others who participated on the steering committee and other committees organized to create and analyze the institution's agenda. Praise also goes to those who made arrangements and provided superb hospitality, for which each of us is very grateful.

Experimental Nature of the Visit and Report

The process that led to the visitation and this report are unusual. They are a reflection of an evolving pattern of thought in accreditation circles nationwide. An increasing number of academic leaders believe that the traditional accreditation visit should be modified. The traditional visit is based on standards which, in turn, are predicated largely on input measurements that tend to use standard measurements for all institutions; they are often not flexible enough to take into account special institutional differences, visions, missions, values, and goals. Many believe the process could be modified, especially where institutions almost surely will prove themselves to be in compliance with accreditation standards. Institutions with excellent reputations, fine student bodies, good leadership, and a history of positive accreditations could be allowed an alternate accreditation visitation process that will encourage the institution and the visitors to use the institution's planning as a basis for inquiry and for filing a report.

Ralph Wolff, the executive director of WASC, concluded in the early stages of preparing for the Cal Poly accreditation visit that Cal Poly should take a different approach -- an innovative, research-based approach that would explore both the achievements and the shortfalls of Cal Poly's efforts to enhance undergraduate and graduate education and to promote the goal of lifelong learning. In response, the Cal Poly 20-member steering committee appointed by University Provost Paul Zingg in 1997 adopted principles to serve as guidelines for the self-study:

1. To study issues of real importance to Cal Poly.
2. To use as widely representative a group as possible for members of subcommittees.
3. To use materials and research already available.
4. To learn something which would not have been known before.
5. To make recommendations without regard to expected resource constraints.
6. To recommend infrastructure changes, where appropriate, to further the progress recommended by the committees.
7. To enjoy this study.

Beyond this, the details of how the accreditation visit would actually be managed were not worked out with specificity, but it was made clear that WASC standards would not be the sole basis for the visitation and that the institution's own planning would be emphasized.

Cal Poly as a Learning Center

These understandings included the assumption that the theme for Cal Poly's planning would be "Cal Poly as a Center of Learning." The origins of this idea are found in discussions

between WASC and Cal Poly, but Cal Poly soon unpacked the concept of the university as a center for learning by identifying three overlapping and integrating components or environments:

1. intellectual environment (content of what we do);
2. physical environment (context of what we do); and
3. campus climate (social and psychological environment for what we do.).

Much thought and discussion have been devoted to Cal Poly as a learning center, using these three concepts. Early discussions between WASC and the steering committee led to Cal Poly's developing a wide-ranging list of researchable questions, which were then assigned to appropriate subcommittees for investigation. All steps were designed to achieve the goal of advancing an understanding of Cal Poly's strengths and weaknesses as a center of learning. During the fall of 1999, drafts of subcommittee reports were submitted to the steering committee and posted to a web site. The campus community was invited to comment by e-mail or at campus forums.

Cal Poly is one of the first WASC-accredited institutions to use this innovative self-study approach. The team believes that Cal Poly's development of a comprehensive list of researchable questions, designed to provoke broader discussion of institutional effectiveness, and the corresponding establishment of a web portfolio of the entire process has been an enormously valuable process for Cal Poly. It has yielded an impressive array of insights and ideas, which will help in its continuing effort to improve.

Pre-Visit and Compliance

With these understandings in mind, the visiting team was appointed. A subgroup of that team — composed of Patricia Breivik, Jean Chu, and Jerry Bepko, with the very able assistance of Stephanie Bangert, Assistant Director of WASC — scheduled a preliminary visit to Cal Poly on November 10-12, 1999.

During this pre-visit, further discussions about the nature of the visit and the role that standards review and compliance would play in the reaccreditation process occurred. At the end of the pre-visit, the group concluded it would be unlikely that Cal Poly would present any serious compliance issues. This request was predicated on observations made during the pre-visit that Cal Poly enjoys a high quality of leadership, excellent student body, fine reputation, good institutional infrastructure, and an absence of any conspicuous problems in its management or community. It asked that Cal Poly prepare, by December 10, l999, a summary document that could be evaluated by team members and serve to expedite the compliance review.

The compliance document was submitted on December 10 and reviewed by WASC representatives and members of the pre-visitation group. It confirmed observations made during the November pre-visit; thus, the WASC team accepted it as *prima facie* evidence of substantial compliance with WASC standards. The March 2000 visit could therefore be conducted with a focus on Cal Poly planning rather than be dominated by compliance matters. During the onsite visit, team members would probe many aspects of the institution and in the course of those

inquiries endeavor to discover any matters that might cause the presumption of compliance to be overcome.

Tenor of the Visit

The team appreciates very much the candor and forthrightness of the Cal Poly self-study documents, particularly the integrative paper. This same candor was expressed in conversations with students, staff, and faculty at Cal Poly. Taken as a whole, it suggests that the Cal Poly family is reaching deep into its work and institutional character to search for keys to improvement. This is a sign of the self-confidence of a faculty, staff, and student body that, in turn, derives from having performed in excellent fashion and having created a remarkable campus with many areas of high achievement as measured by national standards. The team believes it would fail in its responsibility to Cal Poly if it did not offer the same candor and forthrightness in this report. Thus, in some places, the team has set forth unvarnished statements by members of the Cal Poly family and some observations that could not, because of the brevity of the visit, be fully tested, but seemed to have more probative value than potential for prejudice. Cal Poly is a successful institution, but institutions like Cal Poly that have been successful and achieved a great deal can continue their improvement only through completely open and candid examinations of conditions. Cal Poly's candor, and our approach in preparing this report, should not in any way detract from the general high regard for Cal Poly's many accomplishments.

Report of the Visit

As a framework for analysis, the three spheres of activity, and the researchable questions, served in excellent fashion to allow a thorough examination of Cal Poly and its role as a center for learning. While these three spheres served very well for the institutional self-analysis, they did not convert as well into concepts on which implementation strategies for changing and improving the institution could be built. They did not create a vision or serve as rallying points. As Cal Poly turns its attention to implementation, the usefulness of the three spheres as a framework for thinking and talking about Cal Poly tended to diminish.

Since the WASC visitation team report deals not only with a reflective institutional self-analysis but implementation and institutional change, its report is organized around patterns of thought selected from some thinking in the Cal Poly documents and conversations with members of the Cal Poly family. What we think about Cal Poly, and write about Cal Poly in this report, begins with a vision of Cal Poly we heard expressed on many occasions, the first time by President Warren Baker. The vision is that Cal Poly has a confident sense of identity. It is a proud, public, residential, mostly undergraduate, polytechnic university, with a very competitive admissions program, a commitment to service, a commitment to learning by doing, a commitment to learning through problem-based analysis, and a commitment to, as part of the California State University System (CSU), pursuing the noble purpose of providing opportunities in key fields for the populations of California. It is an idealistic institution that is among the largest producers of the kind of professionals — engineers, technologists, architects, and others —needed for 21st century growth. Thus, the visiting team focused on two fundamental questions for Cal Poly to address:

1. Is this a practicable, workable vision for Cal Poly in the 21ˢᵗ century?
2. How can Cal Poly address the challenges of contemporary higher education in this context of self-confident success and in the idyllic setting of San Luis Obispo?

The team discussed the first question at some length with members of the Cal Poly family, and among themselves, and concluded that the vision is sound. The second question led to a consideration of change, priorities, and unity.

CHANGE, PRIORITIES, AND UNITY

Cal Poly has grappled with a series of issues, many of which are chronic and some of which may be intractable. For example, graduation rates and time to degree completion, diversity, and staff development issues have been on the Cal Poly agenda for a considerable period of time, in some cases dating to the last WASC visit in 1990. Cal Poly has good graduation rates, if examined in the cohort of CSU campuses. It is another matter if Cal Poly is examined in a cohort of institutions with entering classes bearing the same qualifications. Compared with these latter institutions, Cal Poly does not produce as much success among its students, as measured by baccalaureate degrees earned within six years.

Cal Poly has had much good fortune in terms of enrollments, but it has also produced very disappointing results in terms of diversity. The WASC accreditation team that visited Cal Poly 10 years ago emphasized this matter. Another matter raised by Cal Poly, as well as the 1990 WASC visitation team, is the issue of staff morale and development. Cal Poly is blessed with a first-rate local workforce, but must be careful to cultivate that workforce so that it can perform at optimal levels and maintain high morale. Each of these issues will be discussed later in the report.

Much planning has been done and much has been accomplished. For example, within the past three years, a new general education program was adopted, with a learning outcomes component, writing-intensive courses, and an inclusion of race and gender issues. Initiatives to upgrade computing power on the desks of faculty and a new university honors program have been established. The university responded to Proposition 209 with a multicriteria admission program that uses "surrogates" developed by Cal Poly based on parents' income and college experiences.

Despite these accomplishments, there is still a sense, even among members of the Cal Poly steering committee, that there may be more planning and discussion than actual accomplishment. There seems to be difficulty in forging consensus among the various Cal Poly constituent groups. In fact, the steering committee acknowledged that it did not have success in reaching consensus on Cal Poly's highest priorities. At the opening meeting with the steering committee, a member of the WASC visiting team asked, "When we leave, what would you hope we had done?" The firm answer was, "What we worked on must become real." "We (Cal Poly) need to firm up our priorities and engage in further work that will result in real directions and decisions."

Moreover, the Innovative Component of the Cal Poly self-study ends with a section called "Steering Committee Reflections," which concludes, "One member referred to the 'meta-questions' the university needs to address. For example: How does the university set priorities, especially when these actions result in funding gaps? How does the university balance shared governance with faculty, staff, administrators, and students and dispel the isolationist attitudes of these groups?"

Funding priorities have been an issue —something not untypical in higher education. At Cal Poly, funding was lean in the 1990s, and new initiatives are more difficult to advance in such times. Also, there seems to have been a disconnect with respect to money. There is a view among some that priorities established through faculty processes are not funded, while others are amply funded. Some department chairs and faculty viewed campus priorities with cynicism as having been driven by resource allocations to particular projects and not as a consequence of any consensus or vision for the big issues confronting the campus. The depth of feeling on this point should not be underestimated. The most frequently cited example was, "They found the money for recreational fields ($9 m), but some science buildings are falling apart, and essential equipment is outdated."

From the perspective of Cal Poly's senior administration, the value of the recreational fields is rather (and quite plausibly) different. The project was seen as a necessary development for a residential campus, and the money did not come from state resources. It came from donors and students. The administration explained that the need for playing fields was communicated to faculty in multiple ways and was a wise decision for the university.

Many faculty and staff thought there may be too many initiatives. The schematic diagram prepared to show how all Cal Poly committees fit together was offered as evidence to support that conclusion. Some thought it is almost as if consultation and discussion, not institutional change, are the goals. The team also observed that there may be an institutional reluctance to change. This could be owing to geographic isolation, a relatively homogenous and aging faculty, and a series of programmatic silos that seem to have developed amidst the campus. Some faculty have developed a cynical view that too many middle-level administrators have been hired, something they call "managed care creep."

The visiting team believes Cal Poly has an opportunity at this point to use the preparation for the WASC visit as a basis for moving forward. The self-study shows an extraordinary amount of thought and analysis. Now, priorities must be set. Cal Poly must decide what it will not do. It must decide what it will do. And it must decide what it will do first.

It is beyond the authority of the visiting team to make specific recommendations on how consensus can be achieved on key priorities. This does not mean that the team refrained from speculating *in camera* on the best approaches, and glimpses of those discussions are set forth in this report for whatever value they may have. In those discussions, the greatest emphasis was placed on the use by President Baker and Provost Zingg of the steering committee or the deans, either of which should have a charge to rank self-study recommendations based on institutional vision. An important theme of whatever process is used is that a small number of priorities should be quickly identified and action should be taken to implement them. It should be kept

relatively simple, and more attention should be focused on keeping faculty, staff, and students, as well as other constituencies, informed of progress on all matters of planning and implementation.

It is even further removed from the authority of the team to make recommendations on the priorities that should emerge. Nevertheless, the team , again *in camera*, noted three areas of particular interest that have been on the Cal Poly agenda for many years. First is student learning, which has been a major point of focus for Cal Poly. After all, Cal Poly began its work using the theme of Cal Poly as a center of learning, which necessarily includes, and may be primarily focused on, student learning. Second is diversity, and third, is campus climate. An overlapping issue, addressed throughout the report, is the chronic issue of graduation rates within the traditional six-year time frame.

STUDENT LEARNING

The work of the Cal Poly academic community in its preparation for the WASC visit focused heavily on student learning. The subcommittee on student learning organized its efforts around questions like these: To what extent is Cal Poly focused on student learning, accountable for student learning, committed to continuous improvement in student learning, and organized for improvements in student learning? What additional actions are appropriate to advancing these goals? The self-study guides the reader through a comprehensive document analysis aimed at answering these questions. It is perhaps most useful to deal with the multiple components of these questions separately.

Is Cal Poly focused on student learning?

In the words of one faculty member, "There is a lived consensus that our purpose is undergraduates." Further, the subcommittee on student learning was able to list very quickly elements of the Cal Poly environment that give testimony to that commitment:

1. Classroom and laboratory sizes constrain class size, facilitating student engagement with faculty
2. Curricula in virtually all areas have a strong experiential component, in support of Cal Poly's commitment to learning by doing
3. Faculty spend an inordinate amount of time in assessment of teaching with student evaluations and peer evaluations being an expected component of teaching
4. Faculty allocate most of their time to instruction and do not display the divided commitment observed at most research universities
5. Teaching effectiveness is the first and predominant factor in evaluations for tenure and promotion.

This list, along with all the other information provided, left little doubt that Cal Poly is serious about *teaching* undergraduates.

The visiting team found less evidence, however, to support the proposition that learning itself is a serious and sustained topic of *inquiry* within the university. The claim that Cal Poly is a "Center for Learning" seems to derive from the readily observable fact that the institution is a serious "Center for Teaching." Within this calculus, an almost single-minded focus on teaching is presumed to result in both the learning outcomes desired and a self-correcting character to the culture itself with respect to learning. This is an assumption that is problematic for many reasons, not the least of which is the presence of an impressive and growing body of learning research that presents an increasingly complex set of relationships between teaching and learning.

The team is uncertain about the extent to which members of the teaching community at Cal Poly have opened their classroom practices to this body of research about learning and established a culture of inquiry with respect to *learning*. In essence, the much-talked-about shift from teaching to learning may be under way, but has not yet been documented.

For example, little spontaneous commentary occurred in any meeting with faculty and administrators on movement from a focus on teaching to a focus on learning. There was an openness to admitting that this move had not taken place in all academic units. Particularly salient, for at least one member of the team, was the total absence of direct reference to particular students in any conversation across the entire visit-- *no* favorite anecdotes, glowing success stories, or illuminating examples. Given the exceptional quality of Cal Poly students, this seemed truly anomalous.

Apart from these observations, a rich documentary history gives evidence of substantial institutional focus on learning. The October 1995 Report of Cal Poly's Curriculum and Calendar Task Force, known as "Visionary Pragmatism," described as "the first comprehensive university-wide planning document for the university and . . . the first university plan to position student learning so clearly at the center of everything else," established principles for baccalaureate programs across the campus and identified a list of desired characteristics for a Cal Poly graduate. This carefully crafted list of 15 skills, capacities, aptitudes, knowledge areas, and abilities (for example, "possess a uniquely balanced and integrated knowledge and understanding of technology, mathematics, sciences, humanities, and social sciences," "demonstrate leadership and the ability to collaborate with others in the service of attaining mutual goals") is as clear and comprehensive a statement of desired learning outcomes as one could find anywhere. In defining five curricular goals, this same document lists as Goal #1, "Cal Poly's primary goal is to enhance learning. This goal should permeate all of the following goals."

The July 1998 Walsh Report from the Instructional Development Study Group, "Establishing a Culture of Innovation," offers further testimony to Cal Poly's emphasis on student learning. Even more recently, an issue of *Outlook: Views from the Administration* includes a very compelling essay on leadership for student learning by Provost Zingg. The documentary evidence seems clear and unwavering in this statement of institutional priority. Thus, the rhetorical foundations for a campus commitment to student learning are strong, and the structures that support that commitment in day-to-day practice are in place.

It is most telling that document analysis constituted the core work of the team members who focused on learning. Most of the documents about Cal Poly and learning they reviewed

were indeed impressive. This institution has talked about, organized, planned, and analyzed for learning considerably more than most. They have worked on "readiness" to be a learning center for several years. In fact, Cal Poly seems inordinately focused on "getting ready" for student learning. A lot of theorizing about how to be a learning-centered institution has taken place but, for the most part, it appears to be still in the design stage. Given the pervasive curricular commitment to "learning by doing," it is particularly striking that the approaches to improving student learning were characterized by one well-informed observer as a "paralysis of analysis."

Is Cal Poly accountable for student learning?

The evidence for accountability is less clear. In the words of one faculty member, "We are organized for learning, but not organized for thinking about it." Faculty reported the existence of few conversations about problems with learning. They noted the absence of reflective practice. Cal Poly was described as isolated and insulated — not a part of national conversations about learning and accountability. Faculty repeatedly talked of being overworked. They presented themselves as disempowered. They also observed that they don't feel safe in discussing the challenges they face in the classroom and how to address them.   The environment for faculty was described as very competitive. Several faculty made reference to assessment based on a "star system," in which program quality is inferred from the distinguished performance of a few. The fear of exposing vulnerabilities or weaknesses comes through very clearly in the report of the subcommittee on student learning.

The first step toward improvement will need to be "driving out fear." In every conversation about assessment over three days, reference was made to program cuts made nearly a decade ago, as if these cuts occurred yesterday. This resentment may be an excuse for not using assessment more effectively. Rather than a key component of improving learning, assessment is seen as an instrument of program reduction.

Additionally, most of the "assessment" that has been done would be more accurately described as process audits. The visiting team was provided with numerous examples of "templates" used for various reviews.   It appears that minimal data on effectiveness of these processes have been collected, and what has been collected has been guarded carefully. There is only the beginning of a "culture of evidence" at Cal Poly.

At first, it may seem strange that those who spend their lives seeking reliable information within their disciplines have great trouble trusting information related to their own work. One source of this prevailing skepticism may be that academics are trained to be skeptics. Academics are keenly aware that information may be biased by the researcher's motives and selected modes of inquiry.

This suggests that bureaucratic, one-size-fits-all, exclusively quantitative means of gathering assessment data about student learning have little chance of catching and holding the imagination of academics. Formulaic approaches to assessment, no matter how ingenuous, are likely to fail; the more ingenuous, the greater the challenge to faculty to disprove the "facts" they produce.

Some approaches to developing information about student learning that academics will respect and use may be more successful than others. One is to support faculty in different disciplines in generating their own information on student learning by encouraging them to use the primary modes of inquiry in their discipline. This genre-familiar approach emphasizes that the value of information lies in its contribution to learning about student learning within each respective academic unit.

Is Cal Poly committed to continuous improvement in student learning?

Cal Poly has a very substantial applicant pool, so admission is very selective. Programs offered are in very high demand areas, so employers eagerly seek after graduates. Unfortunately, the concurrence of these conditions may breed complacency. There is little external pressure to focus on program improvement. The confident sense of identity and pride in the distinctiveness of the institution do not appear to motivate a focus on improvement.   When asked about the institutional commitment to assessment, several faculty shared the impression that some university leaders viewed assessment as an activity appropriate to "lesser" institutions.

These observations by the faculty are further confirmed in the institution's less-than-aggressive response to retention and graduation rates. Although this issue was raised at the time of the WASC visit 10 years ago, Cal Poly only now seems to be moving to address the concern. A systematic cohort study was recently begun, although anecdotes and sometimes self-serving and impressionistic "informal studies" abound.

Is Cal Poly organized for improving student learning?

Successfully engaging any institution in critical reflections on its primary work is inherently difficult. Strangely enough, it seems to be particularly difficult in the academy where the primary business is learning. Two critical supports for learning about learning that should be considered by Cal Poly are obtaining credible information and engaging in dialogue that is meaningfully informed by it.

For example, a program review process exists, but deans do not seem to be part of the review. An academic review process that occurs outside the purview of deans is inadequate in helping to improve the university.

In student learning, as in many other arenas of collaborative human efforts, we are far from having precise measurements. Correlation coefficients among human variables, such as those involved in student learning, rarely exceed .60. This means that we are far from being able to base and judge instructional praxis on strictly empirical findings, such as test scores, nationally or locally developed surveys, jury judgments, and employer ratings. While all can contribute to understanding, there remains at least as much art as science in learning and teaching.

Consequently, whatever credible information various Cal Poly faculties have about their

students' learning, its greatest value will likely lie in the conversations it provokes among the faculty and their students. Empirical, objective data should facilitate ongoing dialogue that can bring out a deeper knowledge about improving student learning. In some cases, a faculty group may decide, based on increased understanding, that highly effective teachers may help others improve their teaching more by serving as mentors and models than by training in teaching techniques.

One of the more intriguing aspects of student learning at Cal Poly is the senior project and its potential for producing rich information that could be helpful in learning about learning. The "learning by doing" in the senior project is not only a hallmark of Cal Poly but also a strong attraction for potential students. Some students view it as a positive factor in the job search after graduation, offering tangible proof of what students can do. Although the foundation for an extraordinary assessment program exists here, the relatively minor steps necessary to actualize this powerful assessment lens have not been pursued.

It is also one factor that negatively affects graduation rates. Approximately 10 percent of students finish all graduation requirements except for the senior project. The team agreed that the senior project is a desirable educational and assessment project, but it was ambivalent about a solution to the graduation rate issue. It was suggested that either the requirement be dropped for students who complete all their work except for the senior project or that all students who leave Cal Poly without completing the senior project be given a D- "on whatever they submit." The visiting team does not wish to endorse or criticize any strategy for resolving these issues and recites the proposed solutions only as examples of the thinking about solutions heard in discussions with faculty.

Students had different suggestions. Some believe that the project should carry four credits for the two quarters in which the students are engaged in their projects rather than only two. Since most courses are four credits, students will naturally put their limited efforts into those courses rather than into their senior project. Students also thought that project completion rates could be improved by encouraging students to start thinking about their projects as early as their freshman year. Lack of faculty advising on these projects seems to be a not rare enough occurrence, and students felt that more advising would have a positive impact on the quality of their projects and in their completion rate. Students also suggested the formation of cohorts of students early in their junior years that could build student-based support for project completion. Based on these comments, the team urges strengthening support for student effort and, perhaps, increasing the number of credit hours assigned to the senior project, although the team recognizes the secondary effects that could be caused by changing credit hour allocations.

Although there appears to be a fairly widespread appreciation for the potential value to students of interdisciplinary offerings, administrative practices and processes at both the campus and system levels are perceived to be deterrents. A lesser deterrent or determinant is the belief that such offerings must consist of highly expensive models. Building on the recent experience of establishing the Honors Program, procedures for establishing multidisciplinary programs should be simplified. Assuming the creation of a Center for Teaching and Learning (or in lieu of the latter, the use of consultants), faculty development opportunities should be provided to expand faculty understanding of a variety of interdisciplinary models appropriate to their

disciplines. Such discussions would have the added value of providing opportunities for faculty to reflect on student learning.

The team is convinced that Cal Poly is a very fine institution. A number of very fortunate circumstances leave the institution extraordinarily well positioned to maintain its competitive edge. This edge may continue to exist, or even grow, irrespective of commitments to improve student learning. However, stronger internal motivations for improvement will need to be developed if Cal Poly is to aspire to leadership in the improvement of student learning.

How to proceed in the direction of establishing a culture of learning is not a matter for the visiting team to decide; however, the following general observations may be useful:

X   First, in order to *do something* about learning, an explicit focus needs to be placed on searching for ways to improve student learning. The professional literature is rich and growing, with many entry points. The Cal Poly self-study represents one valuable entry point with its strong focus on assessing learning outcomes and recognition that more needs to be done to connect assessment outcomes with subsequent program revisions. However, the self-study documents did not recognize any organizing framework for understanding the learning process itself, which is clearly needed to better inform the continuing discussion.

X   During the past 40 years, conceptions of what it means to learn have undergone dramatic changes. The transitions from behaviorism to cognitive processing to social participation represent shifts not only in the kinds of outcomes we value but also shifts in the ways we need to organize for learning. These are more than window dressing on a basic psychology of learning. They present us with conceptual and implementation challenges that are not trivial. One course would be to avoid focusing on assessment by, instead, focusing on empirical information (assessment findings) as a basis for discussion. A related approach would be to reflect on the effect of the multiple, ad hoc, assessment structures and processes currently in place. The aim would be to consider how community learning about student learning might be more effectively facilitated through normal academic processes and deans' leadership.

X   Doing something about learning – actually utilizing the rich databases now available – should not disturb fundamentally the basic autonomy of departments and individual faculty. Instead, consider how learning about student learning can be maximized within teaching units and centralized assessment reporting minimized. This was an expressed concern throughout the self-study document and should receive some direct attention. Faculties should be assisted in developing quantitative and qualitative information consistent with their respective disciplines' modes of inquiry. Clearly, learning research does not dictate practice, even though strong motives to utilize research in this manner exist. Instead, the proper role for learning research is to inform faculty reflections and deliberations about the learning and teaching process while simultaneously ferreting out the deeper tacit knowledge of experienced faculty about student learning. It is worth keeping in mind that one hallmark of any profession is a constant shaping of practice based on accepted knowledge bases. In teaching, we do not have the option to ignore these new developments as they emerge.

DIVERSITY

The subject of diversity is extremely important. It has been on the agenda of Cal Poly for many years and was a prominent feature of the previous WASC visit. Since that time, conditions may have become even more problematic.

Cal Poly faces extraordinary challenges in achieving greater diversity. It is located geographically in an area with few people of color. San Luis Obispo is an isolated community, where cost of living, especially for housing, is very high and employment opportunities for spouses and partners are few. Cal Poly's academic programs typically require higher academic preparation than most colleges and universities in mathematics and the sciences, where K-12 preparation is weakest. Moreover, Proposition 209 has made matters more complicated for all California public institutions.

Thus, the core of under-represented persons at Cal Poly has failed to reach a critical mass, especially among the faculty. More disturbingly, the under-represented groups in the student body are dwindling in size, especially among African American and Hispanic students.

In view of these conditions, the need for additional effort toward diversity seems to be fairly characterized as urgent. Even students themselves expressed concern that their education was weaker than it might be as preparation for a diverse workforce because of lack of experience with diversity on campus.

Cal Poly has done a good deal of thinking about diversity. In its self-study, it reaffirmed a commitment to create a climate that values diversity, acknowledging the need to have academic and cultural programs that "assist members of the campus community in developing global competencies." To assess the campus climate, the self-study subcommittee on campus climate developed five researchable questions, relating specifically to the following:

1. Do members of the Cal Poly community express tolerance and support for "constructive ideas, attitudes, and behaviors that differ from their own?"
2. To what extent is there effective communication among members of the campus community?
3. To what extent does the campus welcome and support diverse members of the community?
4. How can there be improved recruitment and retention of diverse faculty, staff, students, and administrators?
5. How can strategic use be made of vacancies created by upcoming retirements to increase diversity in the campus community?

The findings of the self-study, which were consistent with the team's observations, suggest that, generally, the campus community, which is mostly white, supports the concept of a diverse Cal Poly community, but the support is at an intellectual level and more passive than active. A small core of the campus community, about 1 percent of the faculty and slightly more staff and administrators, shoulders the brunt of responsibility for promoting diversity. Many in this small group are members of under-represented populations. They are also the ones most

likely to have experienced or witnessed hurtful or hateful incidents on campus as well as in the San Luis Obispo community.

The passivity of the Cal Poly community toward diversity is reflected not only in the observations of the team during the visit, but also in the Cal Poly self-study documents themselves. Other than in the chapter on campus climate, little or no reference is made to diversity. Similarly, in various meetings, the issue of diversity was seldom raised, unless prompted by team members. When the issue was raised, anxiety over the need for more diversity was expressed, implicitly acknowledging that the lack of diversity in the student body and the faculty diminishes the educational experience for students who are preparing for work and life in a diverse state like California and in a shrinking world. Considerable efforts by the leadership of the "small core" of individuals engaged with the issue (most of whom served on the campus climate subcommittee for the WASC self-study) and by Cal Poly's administrative leadership are being made.

These efforts have yielded small victories. The Diversity Council, cochaired by the Dean of the College of Liberal Arts and Special Assistant to the Provost began to meet in January 2000 and is an important step forward. Its initial work -- learning from other institutions and increasing representation of the under-represented by admissions and retention efforts -- seem to be good first steps. The revision of the Multi-Criteria Admissions (MCA) to include "bonus points" for low-income and first-generation college-going applicants is also a significant step forward. These neutral criteria will be a surrogate for gender, race, and ethnicity that may now be excluded by Proposition 209.

Additional important steps include the establishment of the United States Cultural Pluralism requirement for all students, creation of the women's center, the addition of women's studies minor, and the establishment of the Ethnic Studies Department, which offers an ethnic studies minor. The inclusion of race and gender issues in the General Education 2001 program is also important, although in the minds of active proponents of diversity the version adopted was "diluted" from the original proposal. The support by the Associated Students, Inc. (ASI), in the form of a $100,000 allocation to establish an ASI Multi-Cultural Center/Outreach-Retention Center, is very significant.

While these steps are laudable, those who are the most ardent diversity advocates feel under-appreciated and marginalized. Their curricular, programmatic, and admissions ideas have not been embraced as enthusiastically as they would like, and their morale may be affected by this. Moreover, efforts have not produced much in the way of increases in diversity on the Cal Poly campus, probably because of the downward forces on the minority enrollment engendered by Proposition 209. Prior to the enforcement of Proposition 209, minority participation was increasing at Cal Poly. Currently, most of the data are in decline. These declines do not seem to have been accompanied by much of an increase in activism in promoting diversity at Cal Poly.

Diversity advocates report that communication with the larger campus community is the subject of some disappointment. Enrollment planners and diversity advocates seem disconnected and unaware of each other's data resources and thus may not have coordinated their efforts to increase diversity as well as one might hope.

The appointment of a special assistant to the provost is an excellent step toward connecting Cal Poly′s administrative leadership to the efforts of the core group of advocates. This should produce bolder and more visible commitments to increasing diversity, as recommended by the campus climate subcommittee. For example, there was a suggestion that "visual arts in the form of murals, statues, and other means of artistic affirmation″ of diversity would be useful. The "provision of diversity awareness and sensitivity education and training to the entire campus community″ would also be useful. They also wisely recommended accountability via regular survey and assessment of campus climate, and incorporating diversity as a criterion for retention, promotion, and tenure of faculty.

Additional sustaining efforts should be directed to the following areas:

X   It may be important to have more emphasis on early outreach in preparing a larger pool of eligible applicants from among the under-represented. This may include getting data and analysis on California high schools to target outreach efforts.

X   Faculty recruitment might include assistance for new faculty in finding spousal and partner employment, child care, and affordable housing. The affordable housing issues are not confined to minority faculty recruits, however. Consideration should be given to appointing visiting faculty or to creating faculty exchange programs.

X   Student programs that engage students in urban diverse environments, such as through service learning, should also be considered.

X   Campus-supported special orientation programs, mentors, and group activities that create systems of mutual support for under-represented groups could also be helpful.

X   In some of these activities, it may be necessary for Cal Poly to go where communities are more diverse. San Luis Obispo is not a very diverse community, and it may well be necessary for Cal Poly to think in new ways and go to new places to reach minority populations.

OTHER CAMPUS CLIMATE MATTERS

The team was impressed by Cal Poly's esprit de corps. In the team′s contact with the Cal Poly family, it found an extraordinarily consistent and strong pride and confidence in Cal Poly as a caring, learn by doing, undergraduate institution. Those who understand Cal Poly′s relationship to CSU often characterized Cal Poly as being one of the best among CSU campuses and beyond. Without exception, every student, faculty, and staff member expressed pride in being affiliated with Cal Poly. This was evident, even among under-represented groups.

While their pride seems related to a genuine commitment to Cal Poly′s vision, each member of the Cal Poly community expressed it in his or her own way. In probing this matter, some faculty indicated that the university should do more to foster interaction among faculty from different schools. This would create a feeling that the "whole″ is greater than "the sum of

the parts." This issue is made more difficult by the lack of common space for faculty to meet informally. A faculty development center for teaching and learning could be a catalyst for bringing faculty together around shared interests and could promote a greater sense of "oneness."

On the other hand, the self-study seems to have enhanced the responsiveness of the campus community to at least three administrative areas: student affairs, facilities planning, and technology support. The successful linkage between Career Services, Student Affairs, and the colleges in providing student internships may serve as a model to further collaborations between student affairs and academics in the development of student service-learning opportunities. Service learning has become an effective vehicle in cultivating knowledge, skills, and competencies related to working effectively in a diverse world.

Student leaders share the pride expressed by faculty and staff. They feel that students are satisfied, on the whole, that the Student Affairs office provides them with adequate support for their extracurricular activities, and that it is a user-friendly campus where students can easily connect to other students with shared interests. The one exception may be the need for fuller integration of under-represented student groups with the general student body. As one student leader noted, AWhen I was a freshman, I had a diverse group of friends. Now, as a junior, all my friends of color have chosen to affiliate themselves with the Multi-Cultural Center.@ This may be a matter that requires further study.

One of the most intriguing issues to emerge from the team=s visit is the juxtaposition of the strength and pride just described, which derives from Cal Poly=s distinguished place in California higher education, with a climate of Avictimization.@ A great deal of energy is drained from otherwise productive activity by the pervasive downward-looking introspection of some Cal Poly faculty. There seems an excessive concern with the lack of recognition, a focus on hardships and disadvantages, and even anger and resentment largely directed at CSU for not adequately acknowledging Cal Poly=s distinctions and uniqueness with adequate financial support. A touch of irony exists in these attitudes because, as discussed later, the CSU administration shares Cal Poly=s pride and confidence in its mission.

To some degree, these attitudes are a result of a faculty view of Cal Poly=s history that is filled with events and actions they believe were directed against Cal Poly. Most important among these is the changing of the "mode and level" funding pattern for CSU campuses in 1994. In fact, these changes were a response to devastating budget cuts across all publicly funded programs in California. Nevertheless, this feeling of victimization at the hands of CSU leads to suspicion and distrust of all CSU initiatives affecting Cal Poly, including the Common Management System implementation, which is a CSU initiative to install throughout the 23 campuses a common PeopleSoft data management system for financial, human resources, and student administration.

These feelings of victimization may be reflected in other ways, such as faculty attitudes towards measuring learning outcomes and the work of the first assessment committee charged with evaluating programs for possible elimination during the budget crisis of the early 1990s.

Three programs were discontinued at that time and tenured faculty members were dismissed. Though an unpleasant event, it was not different than what took place on other CSU and UC campuses in their efforts to deal with the universal reductions in budgets.

Failure to move beyond these past hurts, real or perceived, could negatively impact progress essential to Cal Poly=s future. To break away from this feeling of victimization, conscious efforts to heal old wounds should be undertaken. A kinder, more understanding, more trust-building and supportive environment needs to be promoted and nurtured.

Noting the simultaneous pride and sense of victimization, as well as the encouragement of the CSU administration and encouraging Cal Poly to move beyond the sense of victimization does not suggest a denial of the financial hardships that Cal Poly has endured. In fact, the abandonment of the "mode and level funding" has been a serious disadvantage for Cal Poly relative to other CSU campuses, since a very large proportion of its students (nearly 80 percent) are enrolled in polytechnic and related programs whose costs are higher than average. Moreover, other Cal State campuses have tended to reduce enrollments in their higher-cost programs. Cal Poly's enrollment in these high-cost programs has increased as Cal Poly has attempted to fulfill its particular mission. The result of both budget cuts and reduced enrollment funding based on average marginal costs is that the controllable expenditures per FTE student in engineering have declined 20 percent in constant dollars over the past decade. Similar conditions in agriculture and science and mathematics compel the conclusion that the hardships are real.

CALIFORNIA STATE UNIVERSITY - THE ONE AND THE MANY

Nearly everywhere the visiting team went, its members heard discussions about relationships with the California State University system. In addition to feelings of victimization, many believe that CSU has become more centralized and regulatory and that these new dynamics have inhibited the further development of Cal Poly and other campuses. The visiting team found great encouragement, however, from CSU central offices. Executive Vice Chancellor David Spence was interviewed as part of the visit and indicated strong support for the distinctiveness of Cal Poly. In part because of confidence in the leadership of Warren Baker and Paul Zingg, Vice Chancellor Spence said, "All the stars of the CSU system are aligned to encourage Cal Poly in its development.@ Even new ventures will be within the realm of possibilities, including additional graduate programming in some areas. David Spence volunteered that this could include a doctorate in applied engineering. He also emphasized how proud other CSU campuses were of Cal Poly and how it represented an important model that complements CSU's mission in serving California. Vice Chancellor Spence gave assurance that the regional applicant phenomenon is being addressed and that there should be no interference with the traditional statewide service mission of Cal Poly.

There is also emphasis at CSU on seeking renewed disproportionate funding for high-cost fields across the CSU system. These include agriculture, computer science, engineering, and nursing. This funding issue is one of the top priorities for the CSU system, and the CSU leadership believes that it is better prepared to approach the matter in the 2001 General Assembly

than it was before. This is an issue on which all CSU campuses are comfortably aligned, even though the campus that would be most favored is Cal Poly. In addition, there is a good possibility for one-time cash funding for equipment that could be provided in these key fields during the current budget year.

These envisioned decisions of the General Assembly will mark a watershed moment for the CSU system. Cal Poly, as we note elsewhere in this report, is an enormously important public asset. It will be important for the CSU system to correct these funding deficits by the successful implementation of the plans that were described by Vice Chancellor Spence.

GRADUATE EDUCATION

In its quest to be a center of learning, it is not surprising that Cal Poly has focused on the levels of instruction and sophistication that will most contribute to the lives of its constituent student bodies. In this setting, it is natural for Cal Poly to think about additional graduate education. The fields in the Cal Poly curriculum are of increasing importance and complexity. People who have sought careers in the fields in which Cal Poly specializes are going to need more and more advanced education. In fact, it would not be surprising for the threshold entry credential for technical, scientific, and engineering fields to be a master=s degree, and it could be seen as a disservice to its constituencies if Cal Poly failed to provide advanced learning through graduate programs.

The faculty will have to increase its emphasis on research and graduate program opportunities, but an additional transformation is under way. In the next 15 years, there will be a larger than normal number of retirements at Cal Poly. This presents an obvious challenge and an opportunity. It also will intensify issues such as the cost of housing for entry-level faculty.

CAL POLY STAFF

The team was struck by the quality of staff it met. Cal Poly is in an area where there is a well-educated and talented work pool. Because there are only a few large employers, Cal Poly is without significant competition for hires. The team noted, however, that lower than desirable staff morale has been identified as a significant problem since the last WASC visit without much progress over the intervening years. This is not surprising since, during this period, financial constraints have forced staff cutbacks to achieve "leaner and meaner" operations.

The recommendations addressing staff morale in the self-study are well thought out and modest. Since the proposed changes would add to the quality of staff experience and, thereby, staff effectiveness in serving students, faculty, and administrators, it is likely that implementation of the recommendations would reflect a wise use of resources.

FUNDING

The visiting team believes that Cal Poly has taken the right steps to address funding issues. The Centennial Campaign will create important additional philanthropic funding and endowments. The 100th anniversary of the campus and the health of the nation=s economy are additional assets for the campaign. Efforts to increase state funding through the disproportionate funding for high-cost programs may well generate the funds needed to avoid pressures on these high-cost programs under the current funding mode.

It may be possible to generate additional funding through research. While many types of research consume more resources than they generate in external funding and grants, at the margin, Cal Poly might enhance its resource base by becoming better at earning grants. There certainly is potential to generate more.

It also is possible that the 6,000 acres of Cal Poly land could be converted into some additional interim resources through leasing and other possibilities. President Baker indicated he and others have been working on this possibility, but that most uses other than those that are now in place would require legislation.

Most of all, these funding issues should not preoccupy the campus. Even if no new funding is obtained, Cal Poly's future can be great. The campus may have to focus on growth by substitution, replacing programs and choosing those things that are most important to do and most important not to do. There also should be growth by redesign and collaboration. There should be growth through teamwork and technology. There should be more entrepreneurial activity at the dean and department chair levels. There should be an elimination of silos, a building of trust, and an improvement in communications.

VANDENBURG AIR FORCE BASE

One member of the visitation team saw the M.S. Program in Aerospace Engineering at the Vandenburg Air Force Base via audio and visual technology. The use of multimedia technology to deliver the master's in aerospace engineering was considered by the team to be effective, sufficient, and responsive to the interested student cohort. This program is off to a good start and does not appear to present any accreditation/compliance problems.

AFTERWORD

The team would like to make a concluding point – one that is addressed to the entire Cal Poly community. We believe Cal Poly has done very well. Much of the success that has been achieved is a result of a fine faculty and staff, fine leadership, and a fine student body. The visiting team would like to repeat its praise of the Cal Poly community for its many accomplishments and for pursuing its vision as a polytechnic university with a strong commitment to service, a strong commitment to learning by doing, a strong commitment to learning through problem-based analysis, and a commitment to pursuing the noble purpose of providing opportunities in key fields for the populations of California. These accomplishments have blended with natural advantages possessed by Cal Poly, including location and the mix of

academic disciplines. These many factors have combined to create an even stronger demand for Cal Poly's programs. Some of the best and brightest students that can be found at any public campus in the nation are choosing Cal Poly. Through this confluence of factors, Cal Poly seems at the right place, at the right time, with the right programs.

This should cause all who serve Cal Poly to feel a special sense of responsibility. The critical role that Cal Poly will play in our nation's most populous state creates important issues of stewardship. In a sense, Cal Poly family members are trustees. They are the custodians of one of society's most precious assets – assets that should be encumbered by a sense of public trust. Cal Poly has within its power the ability to continue to make an enormously important contribution to the public good. It has within its power to be extraordinarily successful in pursuing the noble purpose of providing opportunities in key fields for the populations of California. The team hopes all of Cal Poly feels this sense of public responsibility and that they will seize it with enthusiasm and a due regard for their public trust.

(Appendices contain lists of Cal Poly Self-Study Steering Committee and Subcommittee Members, available on the Web at http://wasc.calpoly.edu/people/people.html)