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Please see enclosed DVD for summary data form, required data exhibits, and appendices.

Educational Effectiveness Report

Fall 2010

Introduction

With great enthusiasm, California State University, Monterey Bay opened its doors to students fifteen years ago. Since that time CSUMB has developed programs and curricula that empower students and instill in them skills and knowledge they need to become able citizens of the 21st Century. Though we have grown and changed through the years, our staff, faculty, and students remain excited by and committed to the original campus vision. As the campus approached its second accreditation cycle, in its second decade of operation, we sought to engage in self-study that would help us understand the ways we needed to change and develop to best serve our students over the next fifteen years. We have devoted considerable time, energy, and resources to this endeavor and we have an enormous sense of excitement and accomplishment over our progress.

CSUMB has worked seriously towards increasing student success and graduation rates, as well as toward developing and strengthening our feedback loops. The Fall 2009 CPR acknowledged and reaffirmed this work and encouraged us to develop it further for the EER. We have enjoyed developing the EER as a narrative—a story that describes our progress and achievements—and have given serious attention to the visiting team's and commission's directives.

To help orient readers, we organized the report by sections and themes largely consistent with our proposal. Section 1 responds to the CPR action letter and CPR team report by giving an account of the campus' work on strengthening feedback loops, as well as a summary of our approach to this accreditation cycle, the development of our themes, and how the campus has engaged in this work that is so important to CSUMB's near- and long-term success. We close this section with important updates on the formation of a campus curriculum committee as well as the development and adoption of a new general education curriculum, the Otter Model.

Section 2 describes our work in relationship to the three themes from our Institutional Proposal: 1) Factors in Student Success: Student Success Initiatives; 2) Analyzing the Value of the CSUMB Academic Model; and 3) Quality in Teaching and Learning: Evaluation of Different Capstone Models. The subsection for each theme presents what we proposed, the story of the theme's research, what was learned, and how the campus is using what we have learned. We connect the themes to the recommendations of the action letter, the team report, and the CFRs, throughout.

We present additional important work required by WASC in the final section "Additional Required Elements for the Educational Effectiveness Review." This work includes student learning in GE, the majors, and the co-curricular programs, campus-wide support for teaching, learning, and assessment, analysis of the effectiveness of our program review process, and importantly, a comprehensive response to the action letter's directive regarding "Improvement of Student Retention and Graduation Rates." A subsection integrating the themes that emerge from this accreditation cycle, the value of this work to the campus, and how we will resource the work and maintain our momentum concludes the report.

Section 1: Response to Last Capacity and Preparatory Review Recommendations

A. Strengthening Feedback Loops

We are happy to report a great deal of progress in this area. As noted in the post CPR commission action letter, the university "has developed an appropriate evidence-based model to determine how well it is achieving its educational purposes and learning objectives" (March 2010 letter, p. 1). However, the team report indicates that in practice, "the collection and use of data are inconsistent across the university (p. 1)." The action letter instructs CSUMB that a central focus of the Educational Effectiveness Review should be to demonstrate that the university "is using outcomes data to improve programs and student learning over the short and long term" (p.1). We are proud to demonstrate that the university is, in fact, doing this.

Strengthening feedback loops by enhancing consistent use of data and implementing decisions to improve programs and services is part of continuous improvement and this is occurring across the university (CFRs 4.1, 4.3, 4.4). As expected, this report discusses the use of outcome data to understand and to improve student learning in General Education (the university's University Learning Requirements, or ULR program), in the majors, and in co-curricular programs (CFRs 2.4, 2.5). Additionally, we provide examples of program improvement resulting from the program review process (CFR 2.7). We present some important examples of our work here in this section; however, because they are required elements in and of themselves, they are also discussed in detail in Section 3 entitled, "Additional Required Elements for the Educational Effectiveness Review."

The Academic Senate passed our program review model in 2006, and thus it is not quite five years in existence on our campus. Program review occurs every seven years and is overseen by the provost's office. We are deeply engaged in a productive learning curve as the campus implements the new model and articulates the importance of assessment of student achievement (CFRs 2.7, 4.1, 4.3, 4.4). The review model we are using for university services outside of academic degree programs is analogous to that for the CSUMB academic program review, with a self-study including data analysis, an external review, and the use of program/service review results in planning and implementing continued improvement. Here we present some examples of institutional learning and how we strengthen feedback loops in Academic Programs and University Services.

Example 1: The academic program review of the major in Information Technology and Communication Design (ITCD) conducted in 2007 included the examination of enrollment data, assessment of student learning, an external review, and development of a Program Improvement Plan (CFRs 1.2, 2.1, 2.4, 4.5). An analysis of diminishing enrollment drew particular attention to the profile of current students and to the curriculum. The external reviewers recommended the elimination of a Major Learning Outcome (MLO) in mathematics that was a hold-over from an earlier focus on computer science. Students in computer science were now being served directly by a new major in Computer Science and Information Technology (CSIT), but the MLOs for ITCD had not yet been re-focused. The reviewers proposed that the mathematics MLO was relevant for computer science but not communication design and therefore should be eliminated as a requirement. Further, the reviewers recommended renaming the degree as "Communication Design" in order to better describe the artistic and design content of the curriculum. Faculty embraced and implemented both of these recommendations. Furthermore, the department engages in an annual assessment retreat at the end of each academic year, during which time faculty reviews student work in relationship to Major Learning Outcomes. If necessary, faculty will evaluate the effect (if any) of eliminating the mathematics requirement and make any further adjustments, during the next review. (The ITCD program review portfolio with self-study, external reviewers' report, and Program Improvement Plan will be in the team room.)

Example 2: Academic program review has also produced a powerful evidence-driven learning experience for Environmental Science, Technology & Policy (ESTP). Similar to ITCD, the review process involved significant self-study, assessment of student learning, and study of its curriculum. The program has since invested significant time and energies pursuing several of its external reviewers' recommendations. The reviewers highlighted redundant and divergent major learning outcomes, and suggested eliminating some and clarifying others. As ESTP has begun to restructure its areas of specializations within the major, moving to raise several of them to formal degree programs, it is reshaping the major learning outcomes (MLOs) to reflect the reviewers' recommendations.

The program conducted several mapping exercises that deconstructed outcomes into core skills and abilities, and analyzed curricula to understand where these skills and abilities are introduced, practiced and developed, and mastered by students. As a result, the faculty came to a better understanding of the meaning of their MLOs and identified gaps in the curriculum. Faculty are modifying courses to address those gaps. ESTP engaged in assessment of student learning in two MLOs as part of its self-study; it was the first time the department had engaged in MLO assessment. In response, the reviewers encouraged the program to streamline and routinize the assessment of MLOs. The department now incorporates this work in its annual assessment plans. Finally, the reviewers strongly encouraged ESTP to develop an Environmental Studies degree for students who were not prepared or able to complete the rigorous, math-intensive ESTP curriculum. As a result, the department developed this new major which was passed by the Academic Senate during Fall 2010.

Example 3: In 2009-2010 the university implemented "Academic and Administrative Services Review," a multi-year, cyclical program review of services (as opposed to academic programs) in Academic Affairs, Enrollment Services, Student Affairs, and Administration & Finance (CFRs 4.4, 4.6). The services review goes beyond identifying the goals accomplished by a unit to evaluating the effectiveness of services and outcomes by collecting and analyzing data, conducting external reviews, identifying needed changes and making improvement decisions, and implementing and evaluating improvements. Service reviews demonstrating strengthened feedback loops and continuous improvement have been conducted in Student Activities & Leadership Development, Student Housing & Residential Life, and across each unit in Facilities & Operations. We will provide these reviews in the team room, and an example from the first year of services reviews is included here.

Campus Planning & Development, a unit in Facilities Management & Planning, engaged in services review during 2009-2010. CPD examined the design process it used for the Tanimura & Antle Family Memorial Library (completed in 2008) and responded by changing its design process (CFR 4.4). During the library design phase, the design team led a process in which library occupants determined what was needed/required in their new area as part of their individual office and/or departmental space. The design team asked many questions about each area and how the building occupants would or could work in the new library. In the years that passed before we actually constructed and occupied the building, some of the building occupants changed and they had little input into modifying the new spaces. About a year after the new library opened, the design team surveyed the new occupants to evaluate satisfaction with air quality, office layout, acoustic quality, cleanliness, lighting, etc. Based on the responses received, the design team learned what worked well and what did not.

CPD and Facilities Management and Planning reviewed the survey results and determined what could be modified locally to improve the occupants' satisfaction with their work place. The overall general satisfaction with the workplace was good (78 percent). Thermal comfort and cleanliness did not have high ratings, and changes were made right away regarding those aspects of building operation. The energy manager made adjustments to the temperature of the building to rectify several concerns, and the custodial contractor modified the cleaning routine. The library director consulted with his staff to see if they noticed a difference and sent these results to CPD so the responses could remain anonymous.

Based on what it learned from evaluating the library design process, CPD will incorporate changes in the future. As we design the next academic spaces, we will pay particular attention to thermal comfort, acoustic quality, and lighting issues since those areas most concerned the library occupants. While we maintain general guidelines for office layout and furniture, we aim to provide as much natural light as feasible for work spaces, incorporating individual controls for shades and overhead light fixtures. Because not everyone works in an enclosed office, we will explore layout and partition options for cubicle offices to offer increased acoustic separation and privacy. Creating better zone separation for the building occupants (if operable windows are not provided) should lead to improved thermal comfort since the building systems are not individually controlled. The next building on our planning horizon is a new academic building that will house the School of Business and the School of Information Technology & Communication Design. To date, we have constructed only two academic buildings on campus (the Chapman Science Center and the Tanimura & Antle Family Memorial Library), thus we understand the importance of learning from our experience and incorporating these lessons into the future development of campus facilities.

Example 4: We are using completed feedback loops that result in enhanced programs and services across campus. An example from Judicial Affairs demonstrates the kind of cooperation between Student Affairs and Academic Affairs necessary to strengthen and sustain improvement. The judicial affairs officer tracks the number of academic integrity-related student conduct cases reported each year. We adopted a formal campus policy on Academic Integrity and delivered training for faculty in 2007-2008. Consequently, the number of reported academic integrity cases doubled. This was attributed to increased awareness among faculty. Then, in 2008-2009, the policy was no longer "new," we did not provide training, and the number of cases dropped by 50 percent. We re-introduced training sessions for faculty in August and September of 2009, and the number of reported cases in 2009-2010 increased 83 percent. It is very important to us to develop and maintain a campus culture that values academic integrity and it is clear that we need an enduring process to support this goal. Training on academic integrity is now part of New Faculty Orientation and the judicial affairs officer works with each college to provide faculty training on an on-going basis.

B. Improving Student Retention and Graduation Rates

Strengthening feedback has enabled us to address improvements systematically across the campus, not the least of which has been our need to improve student retention and graduation rates. The commission and team also stressed CSUMB's need to address these important, long-standing challenges (CFR 1.2). These issues are of paramount importance to CSUMB, and we are happy to report that work in these areas has been far reaching and has deeply influenced many of the activities and research projects presented in the EER. This work has also produced significant structural changes in many parts of the campus including our GE system, advising system, and First Year Seminar (CFRs 1.2, 1.7, 2.2a, 2.3, 2.10, 2.12). In the final section of this report (Section 3, Part B), entitled "Further Development of Student Success Efforts: Retention, Graduation, and the CSU Graduation Initiative," we describe the results of our work that focuses on the commission's directive to improve student retention and graduation rates; in this section readers will see the significance of our investment in this work, and the substantial progress we have made in increasing student retention.

Description of EE Approach

A. Summary of Institutional Approach to the Proposal and Themes, Campus Engagement, and Relevance to CSUMB

1) Background of This Accreditation Cycle

CSUMB has used this accreditation cycle, the institutional proposal, CPR, and EER to understand and address issues that will enable the campus to thrive. Most of our work has focused on increasing student success, and better attaching students to CSUMB. We have engaged the campus broadly as we sought to understand these issues and develop solutions (CFRs 3.8, 4.5).

Our initial accreditation was a very rich learning experience and we received a great deal of constructive advice in the recommendations from the visiting team. Thus, the WASC Accreditation Proposal Workgroup (WAPWG, the group charged with developing the proposal for reaccreditation), began its work by conducting a thorough analysis of the 2003 WASC Accreditation Recommendations (Appendix 1: Responses to 2003 WASC Recommendations) which were originally reported in Appendix 12 of the Institutional Proposal. We examined each of the ten recommendations and sought to understand the progress (or lack thereof) the campus had made during the intervening years, the relevance of each recommendation to the current state of the institution, and how we might effectively address the recommendations in the self-study (CFR 1.9). We next considered issues, challenges, and opportunities facing the campus, the 2002-2007 Strategic Plan, and Access to Excellence (the CSU's Strategic Plan). We vetted the results of these two analyses across campus, and sought input from many different constituencies.

Three themes emerged from these campus deliberations:

1) Factors in Student Success

2) Analyzing the Value of the CSUMB Academic Model

3) Quality in Teaching and Learning: Evaluation of Different Capstone Models

WAPWG disbanded after the acceptance of our proposal and we formed several other committees to carry the work forward including: 1) the Capacity Committee, who developed and implemented research and projects for the capacity visit and vetted the capacity report; 2) the Educational Effectiveness Committee, who worked primarily as individual research teams developing the theme-related research described in the proposal; and 3) the WASC Steering Committee, who provided oversight over the CPR, supervised campus-wide engagement in educational effectiveness and EE research, and provided significant vetting of the EE report.

Our campus has engaged widely, enthusiastically, and rigorously in the work presented in this report. Staff and faculty led in the creation of the institutional proposal, engaging the campus via town hall meetings and presentations, and crafting the analysis that led to the identification of the three themes. Faculty conducted the capstone research, and students, staff, and faculty participated in the research. Faculty, staff, and students created and conducted the alumni survey, and we are proud to note that over 500 alumni (former students) participated. Broad groups of faculty drove the significant revisions of the ULR system, academic advising, and First Year Seminar. We presented all of this work across campus multiple times, in multiple venues. Many members of the campus community have engaged in conversations regarding the substantial modifications to our ULR/GE system, significant changes to academic advising, restructuring of the Academic Senate Bylaws and the formation of a campus curriculum committee, and attended a presentation

on the WASC Alumni Survey, Capstone Research, Retention Analysis, and Student Experience Survey. Indeed, we have discussed these projects widely and deeply from campus-wide venues to departmental meetings. There is also a significant sense that these projects are not pro forma and they are not about WASC and accreditation. They are the significant work of the campus and CSUMB has rolled up its sleeves and worked with great enthusiasm.

2) Quality Assurance in Educational Effectiveness

CSUMB has systems for maintaining and improving educational quality at the university level, in the majors, and in general education, and we address these in greater detail in "Curricular Oversight" (Section 1, Part B2), "Support for Teaching, Learning, and Assessment" and "An Analysis of the Effectiveness of Program Review Process," (Section 3, Parts A4 and A5 respectively). At the university level, the Academic Senate's newly adopted curriculum committee will serve the campus by reviewing new academic programs and courses, and providing oversight between and among the curricula of different majors, and coordinating program review and campus-wide assessment.

In the majors, we conduct educational quality and assessment of student learning through program review, which involves a review of degree program curricula as well as major learning outcomes (MLOs), and assessment conducted during "assessment days." Assessment days occur during fall and spring planning weeks; they are days during which departments engage in assessment of student learning. Both program review and assessment days act as feedback loops by starting with inquiry around student performance, development of assessment rubrics, and application of these rubrics to samples of student work. We conduct both processes in ways that produce information on student performance that allow results to be used to improve curricula as well as pedagogical approaches.

Our ULR Faculty Learning Communities conduct quality assurance in general education through periodic course review and biannual systematic assessment of student learning. The course review process requires course authors to produce an alignment grid that illustrates the teaching, learning, and assessment resources devoted to each of the GE learning outcomes. Authors also explain in writing how each of the outcomes manifests in their course, and how they assess each outcome. Both of these help to ensure that the outcomes receive adequate curricular space.

The systematic assessment of student learning is a process by which each faculty learning community develops assessment (assignments and rubrics) for one or more of their learning outcomes every other year. The Center for Teaching, Learning, and Assessment conducts and facilitates these assessments on a valid sample size. Faculty members work in small groups and use rubrics to evaluate student work. Faculty learning communities take results of this work back into their learning community meetings to understand strengths and weaknesses in student performance, and to modify their teaching in response to the data.

B. Additional Work Relevant to Ensuring Educational Effectiveness

1) General Education Reform

In addition to our WASC EE projects (research presented in the Themes One through Three) discussed later in this report, CSUMB has made progress in other areas relevant to Educational Effectiveness including: 1) General Education Reform, and 2) Curricular Oversight. We report on these two important areas here.

CSUMB's founding faculty designed a unique and somewhat experimental GE system which was articulated to the CSUMB Vision Statement as well as attentive to best practices in emergent interdisciplinary general

education programs. We called our GE requirements "University Learning Requirements," or ULRs, and we designed them to prepare students with the skills and abilities they would need as citizens of the 21st Century. With requirements for four semesters of foreign language, technology and information literacy, culture and equity, two courses in Service Learning, four unit courses, and ULR titles idiosyncratic to a new and different campus, our GE system looked and felt very different from more traditional GE systems.

Over time, the campus came to understand that the ULRs were challenging to navigate, overly complicated, made transfer into and out of CSUMB difficult, required a relatively large number of units and likely contributed to the fact that CSUMB students typically accumulated more than 140 semester units during their tenure. In addition, these issues probably contributed to challenges with retention and attracting transfer students from California community colleges (CFR 2.14). Thus, CSUMB engaged in comprehensive GE reform.

In 2008-2009 the Provost and Academic Senate Chair assembled the ULR Workgroup, a campus-wide, representative group, to develop several GE models that would be considered by the Academic Senate. The Workgroup developed parameters and questions and used these, the charge to the Workgroup, CSU Executive Order 1033: CSU General Education Breadth Requirements, and AAC&U's Liberal Education and America's Promise (LEAP), as guiding documents. The charge focused on developing models that would fit the CSUMB Vision, Title 5, and the guiding documents. The model also had to enable students to graduate in 120 units, integrate well with any major, be readily understood by students and advisers, allow students choice of courses, and consider resource implications of any changes on departments. We actively vetted three models across campus in late spring and early fall of 2009.

The ULR Workgroup concluded its work in October 2009, and delivered the models, guiding documents, and a new charge, to the ULROP (University Learning Requirements Operations Committee), the Academic Senate standing committee charged with reviewing and processing all institutional changes to the GE system. The ULROP engaged in a substantial research process, and listened carefully to the many constituents, particularly the community college counselors and campus comments.

The ULROP's work resulted in a new GE system called the Otter Model, adopted by the Academic Senate by a substantial margin (33 Yes, 2 No, 2 Abstentions) in April 2010. Changes in GE with the Otter Model include a reduction in the foreign language requirement for all students and no foreign language requirement for transfer-ready students who transfer into high unit majors, significantly better alignment with Title 5 (Areas A-E) and our sister institutions (both CSUs and CCCs), a much simpler structure (to facilitate advising and transfer, and increase navigability), and the elimination of several formal requirements. The commission directed us to increase student retention and graduation rates. By making our GE system easier to navigate, smaller, easier to understand, and an easier system in which to advise students, the Otter Model is likely to have significant long-term impact on retention and graduation rates (CFRs 2.14, 4.1, 4.3).

The implementation of the Otter Model requires a great deal of planning. A group met during Summer 2010 to develop a time line for implementation. Faculty and administrators developed a comprehensive list of ULR courses that will no longer serve as GE courses in the Otter Model. We have begun work earnestly in Fall 2010 as faculty learning communities for new GE Areas develop learning outcomes and assessment protocols, and as faculty and administrative units respond to the changes, sun-setting some courses, and developing new courses to meet the needs of the new model. We expect the Otter Model to be fully implemented beginning Fall 2012.

2) Curricular Oversight

In CSUMB's early years, faculty focused on developing programs and curricula. However, as programs have become more established, and resources (especially faculty time) have become more limited, the need

to develop the capacity to manage and provide oversight over the curricula has become more urgent. The current Academic Senate Consent Process provided a means by which new courses came into being (or were changed or sunsetted), were introduced across campus, and were brought before the Academic Senate, but this process has only governed the flow of traffic, rather than provided genuine oversight and coordination. The visiting team noted this issue in the team report and strongly encouraged the campus to develop a university-wide curriculum committee. Appropriate curricular oversight is critical to assuring quality in teaching and learning and the curriculum committee will serve as an important part of our quality assurance system, provide course review, and ensure oversight for all curricular and systematic assessment issues. As the need for curricular oversight and coordination, as well as systematic assessment of student learning, has grown, the Academic Senate changed its bylaws to enact a campus curriculum committee. It draws its membership from the colleges and other standing committee chairs. In Fall 2010, the Academic Senate convened its university-wide curriculum committee, the Senate Curriculum Committee Council (CFRs 3.8, 4.1, 4.7).

Section 2: Research Themes of CSUMB's Self Study

Introduction

In Section 2 we develop the three themes of our proposal for reaccreditation: Theme One) Factors for Student Success: Student Success Initiatives; Two) Analyzing the Value of the CSUMB Academic Model; and Three) Quality in Teaching and Learning: Evaluation of Different Capstone Models. In Theme One, we used the results of our retention analysis to develop a new model for academic advising. The model has been developed and is currently being piloted. We also report in this theme on many other student success initiatives currently underway. In Theme Two, our primary research was a large-scale alumni survey which is completed and has been presented and discussed extensively across campus. The results of the study have informed much of our recent planning, including the significant reform of our GE program. A smaller scale study of alumni employers was also conducted and will be available in the team room. For Theme Three, Quality in Teaching and Learning, we engaged in research to evaluate different capstone models. This research is completed and has been presented and discussed broadly across campus. A teaching co-operative through the Center for Teaching, Learning, and Assessment is further pursuing the results of this study and studying three new capstone pilots undertaken by the authors of the capstone research.

Theme One: Factors in Student Success: Student Success Initiatives

A. Intervention Strategy for Theme One Selected Following Retention Analysis: Improving Academic Advising

1) Introduction

During the past five years, student success and retention have become the subject of intense institutional focus. At the time we submitted our Institutional Proposal (2007) we had begun to investigate student retention data and established increasing student success as a major goal in the University Strategic Plan (2008-2018). As promised in the Institutional Proposal and updated in the CPR, a retention study informs this work (2001-2007; and updated in 2008, 2009, and 2010 with annual retention data). What we learned from the retention study and its analysis validated our concerns regarding student retention; concerns echoed by the visiting team and in the WASC Commission Action Letter (March 2010). In the Institutional Proposal we committed to select an intervention directed at student success, informed by what we learned in

the retention analysis. This section of the EER highlights the data and evidence we examined which resulted in the selection of "improving academic advising" as our primary intervention for this EER theme. We present the campus work to improve academic advising along with additional student success initiatives we have developed and implemented in our commitment to increase student success.

2) Retention Study and Analysis

As we examined the entire data set of the retention study, we investigated the data about students not retained as well as those retained. We analyzed persistence rates with respect to important demographic variables including gender and ethnicity, as well as other variables such as academic standing and whether students had declared a major. It is common for institutions to have lower retention and graduation rates for different groups of students. In particular, many institutions show an achievement gap between traditionally under-represented "minority" (URM) and non-URM students, with the URM students often persisting and graduating at lower rates.

When we analyzed our campus retention data, as illustrated in Figure 1, we found that our attrition rates across all populations were actually consistent with their relative proportions in the overall student population. We learned that we were losing students generally across the student body; we lost students in good standing as well as those on probation, and the gender and race of the students we were losing were in relative proportion to their campus demographic.
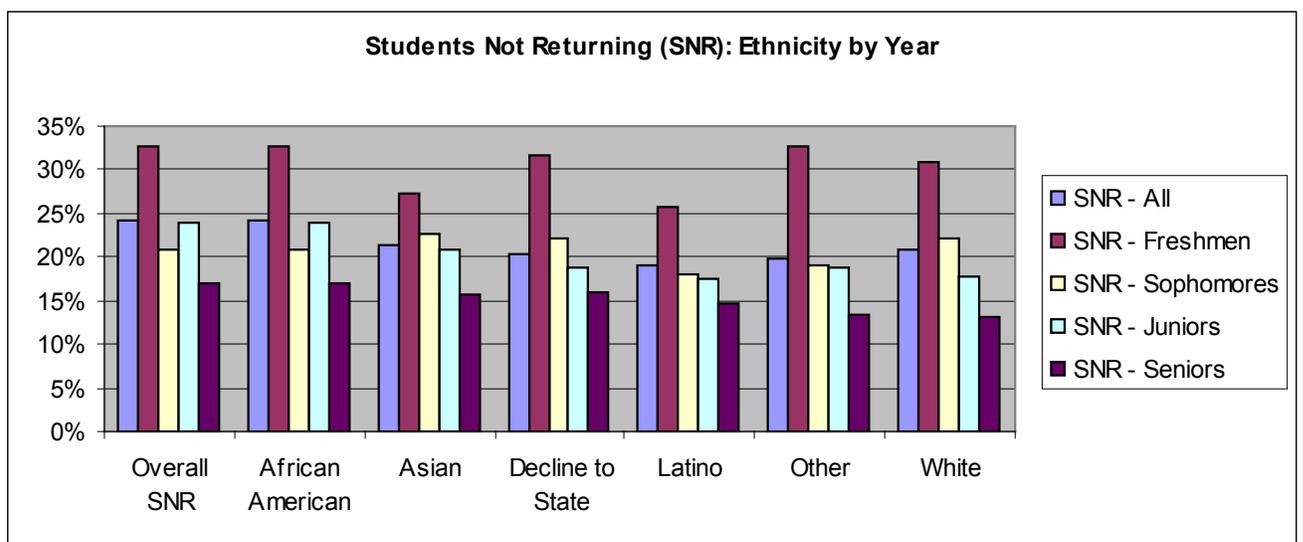
Figure 1 illustrates that students are lost in nearly equal proportions from different ethnicities. The figure also shows that the campus continues to lose students as they move through the years of study.

Armed with this knowledge, we chose to focus on "improving academic advising" as an intervention that would benefit all student groups. As we examined the institutional data gathered in student surveys about academic advising, the selection of this focus for Theme One was validated. CSUMB students expressed dissatisfaction with advising, in various venues, including on surveys commonly given nationally (NSSE and SSI), as well as our own CSUMB Experience Survey, and a survey we gave to students in our First Year Seminar. Survey results are available on the CSUMB website of the office of Institutional Assessment and Research (iar.csumb.edu/survey-reports). The survey data told us that students were dissatisfied with various aspects of advising, including: a) adviser availability/accessibility; b) appointment scheduling procedures; c)

unclear degree requirements; and d) consistency and accuracy of information supplied by advisers, including peer advisers (CFR 2.10).

We determined that a general restructuring of advising was needed in order to develop high quality advising (CFR 2.12); however, we began making significant changes (including personnel) while we developed the new model. Many of these changes focused on the Undergraduate Advising Center (UAC), traditionally the site for much of the lower-division advising on campus. First we developed a director-level position to oversee the UAC ("director of advising"). The director implemented a number of changes in the UAC, including altering its internal scheduling of advisers in order to increase adviser availability, setting hours for walk-in advising, discontinuing the use of peer advisers, maintaining a database regarding student-adviser contacts, starting an online appointment system, and redesigning its website and physical office space in order to more effectively assist students with academic and career advising issues (CFR 1.3). This work aligned with degree requirements and degree pathway projects coordinated by Academic Affairs, which were tied into new degree planning forms that were developed for advisers to explain degree progress and completion to students. At the same time we also implemented the "degree audit" function in PeopleSoft, our student information system. Additionally, we created and published a student advising guidebook in both electronic and hardcopy formats to provide students a hands-on tool to help them through orientation and initial advising. The director of advising also established a common definition of academic advising for use across campus and developed a number of training tools for use by all advisers. The campus Student Career Development Office was placed administratively under the UAC so that those efforts might be more closely aligned with the overall advising enterprise. One of the current staff advisers has been specifically designated as the "transfer adviser" to address the specific needs of incoming transfers (CFR 2.14).

When we selected Factors in Student Success as Theme One for the EER, we spoke in our Institutional Proposal about needing to better attach students to CSUMB. We understand student success to be a more broad concept than retention and graduation rates. Enhanced student success is demonstrated in increased retention and graduation rates and perhaps, in a very fundamental way it expresses how well a student has attached him or herself to a university community and how he/she develops in that context. Our changes in advising have focused not only on increasing quality by providing accurate and timely advising information, but also on creating the connectedness between students and advisers so that students feel they have a consistent and reliable personal contact on campus.

As we investigated the retention data, we realized we needed to go further than identifying the attributes of successful interventions, the outcome we had proposed for Theme One in our institutional proposal. We needed to retain significantly more students at CSUMB and determined to implement a number of initiatives directed at increasing student success and attachment to the university. While improving academic advising has been and will continue to be a significant campus-wide response to these data, we have also endeavored to "attach" students to CSUMB in an array of ways. Here we present examples of initiatives to enhance student activities and student life, initiatives targeting all undergraduate students, first-year students, "undeclared" students, students on probation, and students who want to engage in undergraduate research. Examining the data and understanding the broad nature of the retention challenge facing CSUMB catalyzed university-wide engagement to increase student success. Hence, the additional student success initiatives reported here as part of Theme One.

We have focused many efforts on freshmen students. We knew we were losing many freshmen, and when we analyzed our freshmen retention rates compared to other CSUs, we found we had one of the lowest rates in the system. For students who entered in the Fall 2008, for example, one-year retention rates for the system ranged from 68 percent to 91 percent, with a system-wide rate of 80 percent. At 71 percent, CSUMB fell well below the average.

Our student retention decreased from 2003 through 2006; however, we have significantly increased student retention, particularly first-year retention over the past three years, as clearly shown in Figure 2. Moreover, we now examine retention data intentionally and regularly. In 2007 the provost initiated and continues to sponsor an annual Retention Retreat. The Enrollment Management Council along with other university and faculty leaders review current and recent retention data as background for discussions and planning of retention strategies. CSUMB's focus on retention also aligns with the CSU Graduation Initiative, aimed at increasing retention and graduation rates in the CSU system. We discuss this initiative thoroughly in Part B of Section 3 entitled "Further Development of Student Success Efforts: Retention, Graduation Rates, and the CSU Graduation Initiative" near the end of this report. CSUMB's attention to student retention and graduation rates began three years prior to the CSU Initiative.
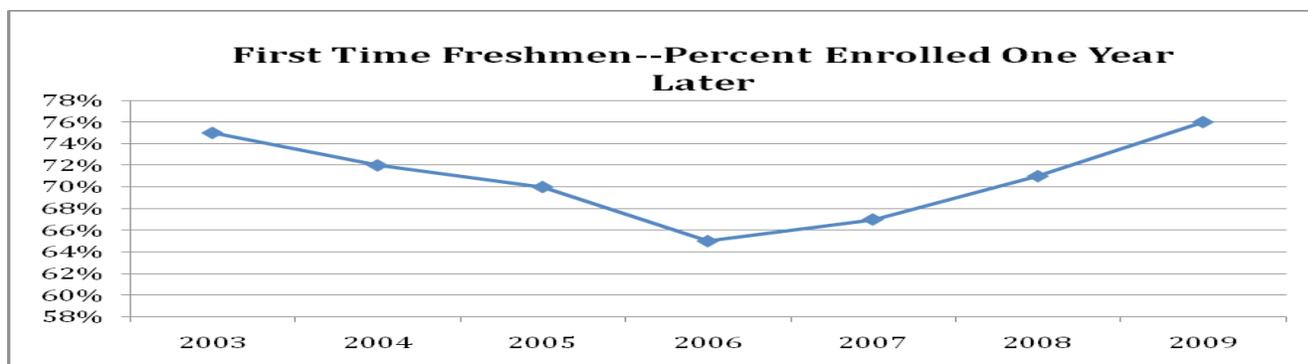

Figure 2

3) A New Model for Academic Advising at CSUMB

CSUMB has utilized various modes of advising throughout the campus; including faculty advisers, professional advisers in the major, peer advisers, Educational Opportunity Program advisers, and Undergraduate Advising Center (UAC) staff advisers. Each of these advising encounters happens separately and autonomously from each of the others. Thus the current practice lacks a mechanism to maintain coherence, consistency and accuracy of information, and oversight.

In 2008 the provost charged an Academic Advising Workgroup to examine the institutional data about academic advising at CSUMB, to consider the best practice recommendations of the National Academic Advising Association (NACADA), and to recommend a new model of academic advising that addressed the concerns identified above. The group, chaired by an academic dean and the director of the UAC, included a broad cross section of campus stakeholders, and has remained focused on the commitment of the campus in its Strategic Plan, "to develop academic advising as a signature strength." (The roster of workgroup members can be found in Appendix 2: Academic Advising Workgroup Roster).

In Spring 2010 the workgroup submitted its proposal of an entirely new model for academic advising to the provost (Appendix 3: Proposal for a New Advising Model). The group drew upon the NACADA advising standards (see Appendix 4: NACADA Advising Standards) for guidance in constructing the model. But of greater importance, it draws specifically from and is responsive to our empirical data and the lessons we have drawn from those data (CFR 2.10). In that vein, the new approach will accomplish the following things: (a) create a centralized advising system under the oversight of the director of advising; (b) provide a clear definition of advising; (c) identify advising outcomes developmentally across the student's academic career at CSUMB and a means for assessing those outcomes; (d) assure that each student has an assigned adviser (and a back-up adviser); (e) clearly delineate the duties and functions of professional staff advisers and differentiate them from the mentoring and professional preparation advising done by faculty; (f) create

uniform and common training for all who are performing advising functions so that all will be advising students from a common knowledge base (see Appendices 3 and 4); (g) make use of available technology to track student interactions with advisers and to improve communication between and among advisers; and (h) continue to track student opinions of advising and use the feedback for continuous improvement.

4) Features of The New Model

We understand that effective advising is produced through a developmental process which assists students in the clarification of their life/career goals and in the development of educational plans for the realization of those goals. This model focuses on providing services and functionality through the activities and programs listed below. We will assess the efficacy of overall advising and the model's individual elements through conducting the NSSE, SSI, and more specifically through a decrease in the number of graduation applications with unmet requirements and a reduction in the number of complaints received regarding having received misinformation.

Advising Council: All university staff providing academic advising will be members of an Advising Council, led by the director of advising. The director will establish campus-wide advising curriculum, defining advisers' roles and responsibilities, and training for these advisers. We will train advisers in common and will meet at least quarterly to discuss issues of common concern (CFR 1.3). A substantial theme throughout this training will focus on connecting to students, and helping them connect to CSUMB. As part of adviser training and development, advisers will regularly address case studies of student advising scenarios. Responses will be assessed according to a prepared rubric and we will provide additional training to ensure dissemination of consistent and reliable information.

Changing Roles for Faculty: Faculty will shift to a formal role as mentors. Professional advising staff will assume complete responsibility for guiding students through courses and majors, while faculty will help students make valuable connections between learning in their majors and pathways to graduate education and careers. We will assess the efficacy of this change, as indicated above. In addition, the Campus Advising Board (see below) will survey student and faculty satisfaction annually regarding the changed roles. We will ensure that faculty have the appropriate training in this new role to fulfill the needs of students (CFR 3.8).

Defined Student Learning Outcomes: Consistent with CSUMB's outcomes-based model, Advising has developed its own student learning outcomes (SLOs) and structured its services to support student attainment of these learning outcomes. These outcomes keep advising services focused on what students need and the outcomes communicate to students what they can expect from effective advising and successful navigation through CSUMB. Academic Advising SLOs are largely assessed through student surveys including the FYS Advising Survey, and the Undergraduate Advising Survey which measures students' impression of their own competency (CFRs 2.3, 2.4, 2.11, 2.12). (A copy of the learning outcomes can be found in Appendix 5: Academic Advising Student Learning Outcomes). These outcomes will also be evaluated by data on student complaints about advising as well as tracking progress to degree.

General and Specialized Caseloads for Academic Advisers: The use of the term "caseloads" is intentional: students will no longer experience the prior "hit-or-miss" approach to seeing an adviser. Each student will have an identified adviser. Under the new model, large majors will have advisers who advise both in GE and lower division requirements of these majors as well as their upper division pathways. Small majors will be served by advisers who develop expertise in several majors. All advisers will develop expertise in general education requirements as well. The efficacy of this change will be assessed as noted above.

Placement and Location of Advisers: We will physically house some professional advisers in the UAC, while locating others throughout the campus. This will provide more readily available access to an adviser for those students whose classes may not be near the UAC office. To ensure that the quality of advising at these

"satellite" offices is consistent with that provided by those reporting directly to the advising director, we will require all advisers to participate in the same trainings and we will hold everyone to the same standards (CFRs 2.10, 2.13).

Advising Board: The new model establishes an advising board that will provide counsel to the director and oversight to all the advising and advising-related activities on campus, especially policy matters. It will also serve as an advocacy group on campus to ensure that advising maintains its priority status among campus concerns. An academic dean will chair the board and it will draw its membership from across the campus community. We will ask the Associated Students (campus student government) to name a representative to ensure student input (CFRs 4.1, 4.2).

5) 2010-2011 Pilot Study

In order to evaluate staffing needs and effectiveness we are conducting a pilot study of this advising model prior to its campus-wide implementation in 2011-2012. The pilot examines three implementation variables: (1) advisers have and use a common advising knowledge data base; (2) significant increase in adviser availability; and 3) advisers across campus produce consistent, high quality advising. We have developed outcomes and indicators for the pilot study; we include these for review in Appendix 6 (Advising Pilot Study Outcomes and Indicators). The UAC will assess the pilot and make any needed changes as the campus gears up for full implementation of the model in the 2011-12 academic year. Three programs (Business, Psychology, and Teledramatic Arts & Technology) have volunteered to be in the pilot program. This provides us with one very large program that is accustomed to having its own staff adviser (and thus will serve as a precursor to the satellite model) and two medium-sized programs with different advising histories. We anticipate learning a great deal from the pilot study.

In conclusion, we are collectively looking forward to the new academic advising model providing the campus with tools to improve academic advising for all undergraduate students. This model, in addition to the changes already implemented, enables students to connect to an adviser regarding degree requirements and to faculty about professional preparation. The advising model provides a clear definition of advising, shared communication tools among advisers, and training. We will assign specific advisers to students and we will publicize adviser availability widely. Having advisers in both the UAC and in the satellite offices enhances their accessibility. We have established specific advising learning outcomes that mesh well with the university's efforts to clarify degree requirements and the pathways for meeting those requirements. The clarified degree requirements and pathways, coupled with the model's established standards for advising performance and training, will increase the accuracy of information provided to students. We are developing appropriate assessment mechanisms so that we can make changes as needed to any of the advising program elements. Our work here represents significant progress. We are excited to be positioning ourselves to make academic advising truly a signature strength of our campus (CFRs 2.3, 2.4, 2.12).

B. Attaching Students to CSUMB: Additional Student Success Initiatives

In addition to our central Theme One intervention strategy to increase student success by improving academic advising for all undergraduate students, CSUMB has implemented a number of other student success initiatives directed at increasing retention and student success. We developed these initiatives in response to student feedback and institutional research and these initiatives are demonstrating success with students in various ways.

1) Creating a Student Center

With the opening of the Tanimura & Antle Family Memorial Library in 2008, CSUMB experienced a phenomenon unlike any in its brief history. Students flocked to the library. They have finally found a place to study, to drink coffee, to socialize, and to hang out. Unlike many campuses, CSUMB does not have a student union and the lack of centralized, dedicated space has been felt sorely by our students. The construction of our new library also resulted in space becoming available in the former library building. The president directed Student Affairs and Campus Planning & Development to work with Associated Students to plan for a new student center to be located in this renovated site. The Student Center now provides opportunities that integrate students' out-of-classroom experiences. With input from students, it was clear that the students wanted the new student center to provide study areas, more student organization and meeting space, open seating, wide-screen televisions and a game room, in a building that is "bright, open, and easy to get around."

Student Activities moved into the building in January 2009, and the Student Center is evolving as a space which facilitates community-building and creates a more distinct sense of place for students. The Otter Cycle Center, Outdoor Recreation, and Student Housing & Residential Life are located in the Student Center. Students are also planning a multicultural center to be located in the Student Center. Proximity matters at CSUMB; the building is centrally located on the main quad near two dining facilities (Dining Commons and Otter Express), along with most of the first-year student residence halls.

Student Activities coordinates many student involvement opportunities including Associated Students (student government), Otter Student Union (programming board), Outdoor Recreation, Student Clubs and Organizations, Multicultural Greek Council, Student Leadership Programs, New Student Otter Orientation, Otter Days (Welcome Week Activities), and Events/Activities (e.g., National Collegiate Alcohol Awareness Week). These co-curricular programs facilitate out-of-classroom learning in support of the academic curriculum. Additionally, these programs help students establish connections with peers and with the campus in order to facilitate student retention and success.

We invite and engage student interest and initiative. For example, student art is being displayed in the Student Center. In 2009-2010, a student in the Integrated Studies Special Major designed and created a mural for his capstone project which vividly captured and depicted the history of the Esalen Indians who are native to the central California Coast. Student Activities worked with the student, the faculty, and with facilities staff to transport the mural to and from the capstone venue, and to install the piece in the Student Center. Another example is a collaborative effort with Student Housing & Residential Life. Student interest has led to the initiation of an outdoor-recreation-themed community in the residence halls. Interest was so great that the initial one floor has developed into an entire building with a waiting list for the community. Student Housing & Residential Life now has the opportunity to collaborate with the Outdoor Recreation staff in Student Activities to develop additional programs around this theme and meet student needs, creating synergy in Student Life.

Leadership changes in Student Affairs (including a new vice president, dean of students, and student activities director) have highlighted the necessity of integrating staff members at all levels into on-going assessment and evaluation efforts. Going forward with new leadership in place, Student Activities and the Student Center will engage in thoughtful planning to both cultivate the value of assessment and to develop mechanisms to become more intentional and comprehensive in these efforts. One example of this is the 2009-2010 participation of Student Activities in the university's Academic and Administrative Services Review process. This formalization of information sharing, assessment, and evaluation is another example of our progress on one of the commission's directives, strengthening feedback loops, and will assist the department in its plans for development and improvement of programs and services as well as accommodating future change in a fast-paced, dynamic, institutional environment.

2) Campus Development

We have made significant progress during the past five years in improving the grounds, connecting the campus to the surrounding communities via public transportation, investing in sustainability, and developing new majors highly sought by students. All of these improvements serve to make CSUMB a more attractive undergraduate destination for students and their families.

Example 1: Since May of 2010 we have removed 32 old military structures, adding to the nearly 200 structures we have removed since the beginning of the university. We have improved landscaping throughout campus, and many buildings are freshly painted. Finally, we have invested in sidewalk installation and lighting projects that enhance accessibility and safety. Ultimately our ability to retain students is intimately connected to how well we help our students establish a sense of place, a place connected to learning and inspiring learning experiences (CFRs 3.5, 4.6).

Example 2: Having been established on a retired military base, CSUMB can seem remote and rural to many of our students, especially to those from cities and suburbs. During the first decade of operations the campus community had little direct access to the Monterey/Salinas Transit System (MST). This lack of public transportation to regional communities has been a substantial impediment for our students without cars. In recent years we have invested in removing the barriers to getting into the surrounding communities, and making access to public transportation on campus convenient and inexpensive. We have made considerable progress. MST buses are now free on campus and on routes leading off campus to Marina, Seaside, Monterey, and Salinas. Using public transportation to go to any of the local communities from campus has become easy, and student ridership has increased markedly in recent years.

Example 3: CSUMB is advancing in the area of sustainability, which is of great interest to students. In 2007, President Harrison was one of the earliest signatories of the President's Climate Commitment (http://www. presidentsclimatecommitment.org/). The Climate Commitment addresses the campus' intent to expand and reshape curriculum and infrastructure to reduce our carbon footprint and other impacts on the environment, to implement and track sustainability within the curriculum, and to develop and update a climate action plan that documents progress and sets our course for future developments. As a part of this effort, our campus has joined more than 240 other campuses to take part in the STARS (Sustainability Tracking and Rating System) assessment to help us to monitor and measure our efforts toward increasing our awareness and action toward a more sustainable campus. The Climate Commitment and participation in STARS are just two highlights of our substantial investment in sustainability. In the first decade of the 21st Century, sustainability has become a household word. As students witness the beginnings of global warming, sea level rise, climate change, and the ongoing depletion of earth's resources, they look for relevance in what is happing in the world to what is happening on campus, and look to see if the campus merely mirrors the values promulgated by society, or provides leadership. Our commitment to sustainability derives from a substantial passion to steward the earth in responsible ways, but we understand that it is very likely to contribute much to our ability to attract and retain students (CFRs 2.10, 4.1).

Example 4: Finally, we have developed new majors in response to student needs and requests. These include undergraduate programs in Psychology and Biology (launched in 2007), and Computer Science & Information Technology (launched in 2008), and a Master's of Social Work (launched in Fall 2010). Similarly, due to regional demand, we are working with two community colleges and several regional hospitals to develop a proposal for a Bachelor of Science in Nursing. In addition to new programs, we have renamed several programs to better connect these undergraduate degree programs to students and their families. The name changes include: International Management and Entrepreneurship to Business Administration, Earth Systems Science & Policy to Environmental Science, Technology & Policy, and Human Performance & Wellness to Kinesiology. These changes reform these program names to phrases that have broader recognition to the general public, and give these programs visibility on CSU Mentor, the web-based service that helps students locate degree programs they are interested in.

3) Project Higher Ground

In the fall of 2009, faculty and staff developed a very exciting program, Project Higher Ground, a living/learning community, as a collaborative effort between Student Housing & Residential Life and First Year Seminar. The project provided faculty contact, co-curricular activities linked to coursework, and opportunities for peer support and collaboration. The goals were to increase students' engagement in academic and co-curricular activities, increase connection to the university, and improve retention. Three cohorts of students enrolled in two courses together and lived in the same residence hall. Eighty-three students participated in one of three themes: Rock 'n Roll and Reality: Schooling, Stereotypes and Success: and Environmental Science. A live-in peer mentor organized social and educational events, and the faculty facilitated activities, including movie nights in the residence hall, a concert of student bands, and a camping trip.

The students and the faculty of Project Higher Ground reported active engagement of students with each other around coursework and in campus clubs and activities. As directed in the recent action letter, faculty and administration have worked on strengthening feedback loops in order to improve the program. The retention from Fall semester 2009 to Spring semester 2010 was higher for Project Higher Ground participants (95 percent) compared to the overall first time freshmen retention (92 percent). Retention from Fall 2009 to Fall 2010 was 83 percent for Project Higher Ground participants compared to an actual third semester return rate of 76 percent for the entire first-time freshmen cohort (CFR 2.11).

Our experiences with the pilot led to several changes for the academic year 2010-2011. A Project Higher Ground faculty learning community spent Spring 2010 planning for the year, including expanding to four cohorts or 120 students, with two peer mentors. Because the fall GPAs in two of the pilot cohorts were below the average for the incoming class, we will implement several strategies to enhance academic support, including mid-term grade reports from faculty. One of the cohorts in Fall 2010 is "Adventures in Wellness," which we expect will infuse the Project with an emphasis on appropriate balance and healthy choices. More integrative learning experiences should lead to greater coordination and enhanced faculty presence in the residence hall. A planned Spring 2011 common course for each cohort, and office hours for academic advisers in the residence hall will further support the students. With these changes, we anticipate realizing even greater gains in retention as compared to the pilot year.

4) Undergraduate Research Opportunities Center (UROC)

Undergraduate research is a powerful mechanism for engaging students with high academic potential and aspirations. Since we have had a history of losing students of all academic abilities, it is important that retention efforts focus not solely on "at risk" populations, but also on our high academic achievers. Founded in January 2009, we are extremely proud to have opened the Undergraduate Research Opportunities Center. UROC instills a sense of self-efficacy, scholarship, and student achievement through a suite of services and activities that support and reinforce the undergraduate research experience. UROC is dedicated to finding the most effective mechanisms for keeping students engaged, inspired, and connected to their education. The majority of students engaged in research through UROC plan to pursue degrees beyond their bachelor's (CFRs 1.5, 2.8, 2.10).

UROC focuses on four key elements of the undergraduate research experience: individualized mentoring and cohort building; scaffolded, real-world research experiences; training and support; and rigorous academic standards. Mentoring is the cornerstone of the undergraduate research experience. The mentors guide the research process, provide access to project-specific resources, and identify and address research training needs. Under the mentor's guidance, the research experience is scaffolded to allow students to progress from novice to advanced researchers, taking on increasingly independent work. The research is also placed into context for students, with direct connections to their coursework. In order to maximize the research experience, students also receive training and support in topics ranging from graduate school

applications and the GRE to research presentations and scholarly writing. Underlying all of these elements, we hold these students to strict academic standards and a personal code of conduct. Taken together, these experiences foster a sense of self-esteem, empowerment, and persistence that result in academic success.

Students engaged in undergraduate research report significant gains in skills, abilities, and self-perception as a result of their experiences. In UROC's 2009 Summer Research Experience Survey, 80 percent of UROC student respondents reported a "large" or "very large" gain in their ability to "function successfully as a researcher on a research project" and 76 percent reported large gains in feeling "more competent as a researcher in your field." They also reported large gains in their ability to "do more demanding research" (56 percent), use "discipline-specific language and terminology" (60 percent), and "generate a research question" (48 percent). A full 72 percent reported that the research experience had a large role in "further refining your academic and career goals."

Furthermore, 40 percent of respondents reported plans to obtain a master's degree, 4 percent a professional degree, and 44 percent a doctorate degree. In the same survey, 80 percent reported that they "became more committed to going to graduate school and completing an advanced degree" as a result of their undergraduate research experience. A large proportion (92 percent) reported that the experience broadened their "awareness of academic and career opportunities" available to them upon graduation. (The UROC Undergraduate Research Program 2009 Summer Research Experience Survey Report will be in the team room). The fact that 15 of the 16 UROC students who applied to graduate programs for Fall 2010 were accepted provides evidence that these intentions translate into achievement.

5) Major Fair

To encourage thoughtful academic planning and exploration and selection of an undergraduate major, the First Year Seminar and the Office of the Provost annually sponsor a Major Fair during fall semester. To date, the Major Fair has been held three times. At the Fair, faculty, staff, and upper-division students represent each of the 18 undergraduate majors and provide information, contact, and conversation. As part of an assignment in First Year Seminar, approximately 450 – 500 students gather information about their intended major, and explore other majors of interest. Representatives from Study Abroad, the Undergraduate Research Opportunities Center, the Career Development Center and the Service Learning Institute are also present. The Major Fair directly responds to feedback from lower-division students about needing support to select a major at CSUMB. Both faculty and students report high satisfaction with this event. Departments create contact lists of students interested in their major and students meet faculty personally, get advice on course pathways, and gain clarity about career options (CFR 2.13).

6) A New Model for First Year Seminar

Since CSUMB's inception, First Year Seminar (FYS) has faced many challenges. The literature suggests strongly that an engaging introduction to the university experience can play a positive role for students. Over time, changes in FYS have been implemented, but the course has not reached its full potential.

In the university's serious efforts to understand and address its issues with student retention, in Fall 2008 the provost and chair of the Academic Senate formed a campus-wide task force charged with creating a high quality first year learning experience that would increase student retention (CFR 1.2). The group engaged the literature on FYS and First Year Experience programs, as well as the needs of the campus, met throughout an entire year and based its recommendations on their research and deliberations. After significant presentation to and feedback from the campus, the Taskforce delivered a model of FYS to the provost and to the chair of the Academic Senate in April 2010. In this model FYS courses serve one GE area, university orientation, and information literacy outcomes, in a rigorous introductory learning experience. The Academic Senate will consider the recommendations in Fall 2010 and if approved, we will implement

the new FYS in Fall 2012 along with the new CSUMB GE framework, the Otter Model. As directed in the recent action letter to improve student retention and graduation rates, our investment in developing a new model for First Year Seminar, responsive to both best practices from the literature as well as an historical understanding of our challenges, is a prime example of the our important work in this area.

7) Center for Student Success

The Center for Student Success (CSS) is a U.S. Department of Education Title V grant-funded initiative designed to enhance student access and to support the retention goals of CSU Monterey Bay. The center facilitates student-to-student interaction and student involvement, and increases overall academic engagement for incoming and continuing students. The center also exists as a collaborative partner with other campus units that address issues impacting student development and achievement. The CSS objectives address student persistence and retention with a specific charge to help decrease the number of academically disqualified students, increase the rate of remedial student completion, and increase retention rates of target populations. CSS activities target: 1) Entering first-time Educational Opportunity Program (EOP) students; 2) EOP students transferring from community colleges; 3) students identified for remediation in mathematics and English; and 4) students who become academically deficient resulting in academic probation.

We obtained the grant in 2008, and the center is now fully staffed. It has hosted workshops and events and created interventions for students taking remedial courses and for those on academic probation. One of the CSS student seminars this year was, "Face to Face Communication and Leadership," with Andrea G. Mosby. The seminar taught students the vital skills needed to build community and to develop the necessary confidence for becoming student leaders at CSUMB. Additionally, we trained student leaders to lead focus groups; they now do so with first- and second-year students. The data gleaned from the focus groups have informed the planning of strategies to enhance the success of sophomores at CSUMB. We are piloting this work in 2010-2011. The center also celebrated academic achievements of first-time freshmen at CSU Monterey Bay, hosting the First Annual Distinguished Freshmen Celebration (CFR 1.2).

Examining institutional data allowed CSUMB to identify and develop numerous student success initiatives. For each initiative implemented, we gathered data that complemented institutional research to evaluate, assess, and improve the success of each initiative. The early results of CSUMB's efforts to improve retention and student success are impressive. We provide the full report on improved retention and graduation rates below in "Additional Required Elements" (Section 3, Part B) (CFRs 2.7, 2.10, 2.11).

Theme Two: Analyzing the Value of the CSUMB Academic Model

A. An Alumni Survey of CSUMB Graduates

1) Introduction

During CSUMB's initial accreditation, the visiting team stated that while CSUMB had a more expensive academic model than its sister institutions, it lacked evidence that the model actually led to better outcomes for its graduates. That suggestion, and the campus inquiry developed by the WASC Accreditation Proposal Workgroup, led to this study. This research constitutes a significant contribution to CSUMB's WASC-related research; however, its primary function is to inform various campus-wide programmatic and curricular planning processes.

This research includes an extensive and robust alumni survey, presented here, and a smaller-scale survey of community partners and employers of our graduates, that will be presented in the team room. Though

we have not used the research to rank the importance of different aspects of the model, as described in our proposal, the research has contributed much to our understanding of the value of different aspects of the academic model. It has also contributed to decision making around resourcing aspects of the model and particularly to the overhaul of our GE system. We charged a five-member workgroup (two faculty, one administrator, one staff, and one capstone student) with designing, administering, analyzing, and disseminating an alumni study. We express the purpose of this study in the overarching research question: "To what extent do the CSUMB academic model and core values impact and contribute to professional and personal growth of our alumni?" This summary explains the research process, conceptual framework, sample details, findings, some recommended changes for CSUMB, shortcomings of the process, and recommendations for future research. The full report (available in the team room) provides the details of the analysis, the survey, and a full presentation of alumni written comments.

2) Research Process

From Fall 2007 to Spring 2008, we developed and vetted the survey/questionnaire questions comprehensively across campus. Since the survey featured three key curricular elements of CSUMB's academic model (capstone, Service Learning (SL), and second language proficiency), we worked directly with these three academic areas for their feedback. As a result, we adopted specific questions from capstone advisers, the SL Student Leadership survey, and from World Languages & Cultures professors. To enable some nationwide comparisons, we adopted a few questions from the American College Testing (ACT) Survey as well as some questions from the literature review. We invited programs engaging in program review at the time to piggyback program-specific questions onto this survey, rather than trying to engage alumni with two separate surveys. All seven programs included questions (note: alumni with particular majors received appropriate questions from those degree programs undergoing review). The survey was pilot tested both in hard copy and online versions with on-campus alumni. At the beginning of Fall 2008, Student Voice™ professionals reviewed and provided feedback on our survey and helped with administrative details. Starting in mid October 2008, they administered the survey for five weeks, with periodic reminders sent to the alumni. The survey was sent to all available alumni email addresses (2233); we received 538 responses (overall 24 percent response rate) of which 69 percent were female and 31 percent were male. To understand whether the core values have different impacts on Natives (who started as freshmen) and Transfers (with all GE completed), two groups were analyzed: Natives (36 percent) and Transfers (39 percent) in all three sections.[1]

3) Conceptual Framework

We focused on the three key curricular elements (capstone, Service Learning, and second language proficiency) because they are very important aspects of the academic model. To assess the impacts of the seven Core Values, we explicitly covered four: interdisciplinarity; multicultural and global perspectives; technological sophistication (computer competency); and ethical reflection and practice. We embedded the remaining three values (Service Learning, applied/active/project-based learning, and collaboration) throughout the survey. Using Peter Ewell's four basic dimensions of outcomes as the conceptual framework: knowledge outcomes; skills outcomes; attitude and value outcomes; and behavioral outcomes, meaning what alumni do

Core Values:

- Applied, active, and project-based learning activities

- Interdisciplinarity

- Multicultural and global perspectives

- Technological sophistication

- Service Learning

- Ethical reflection and practice

- Collaboration

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1 The rest were in sub-categories with various ranges of credits transferred.

after college (cited in Terenzini p. 524; Ewell 1984), we structured the survey in two sections: Core Values and Key Curricular Elements. We tried to assess the attitude and value outcomes via qualitative, open-ended questions, with the intensity of alumni's responses measured by the Likert scale in more quantitative questions. A full analysis and presentation of this research is available in the team room.

4) Findings

Core Values: Figure 3 clearly shows that more than 60 percent of respondents agreed or strongly agreed their experience at CSUMB in these critical areas contributed to their preparation for further education and employment. Alumni ranked computer competency and interdisciplinarity highest among the Core Values.
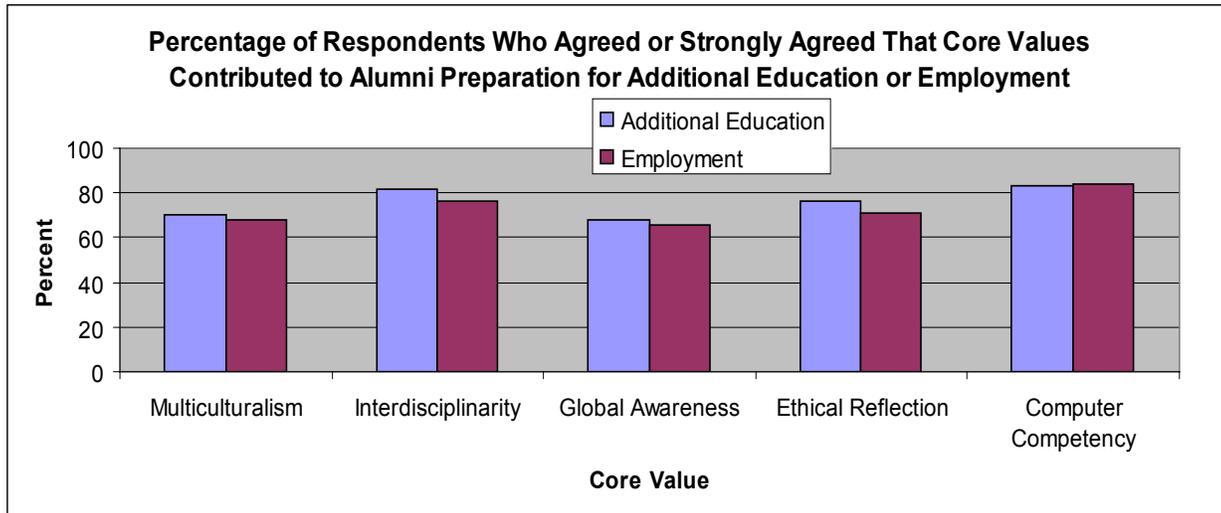
Figure 3.

Key Curricular Elements: Among the Key Curricular Elements, alumni most strongly agreed that capstone contributed to their preparation for additional education and employment. Close to half of our alumni agreed or strongly agreed that their experience in Service Learning prepared them for additional education or employment. Less than 30 percent of our alumni agreed or strongly agreed that their second language proficiency prepared them for additional education or employment.

Figure 4.

20
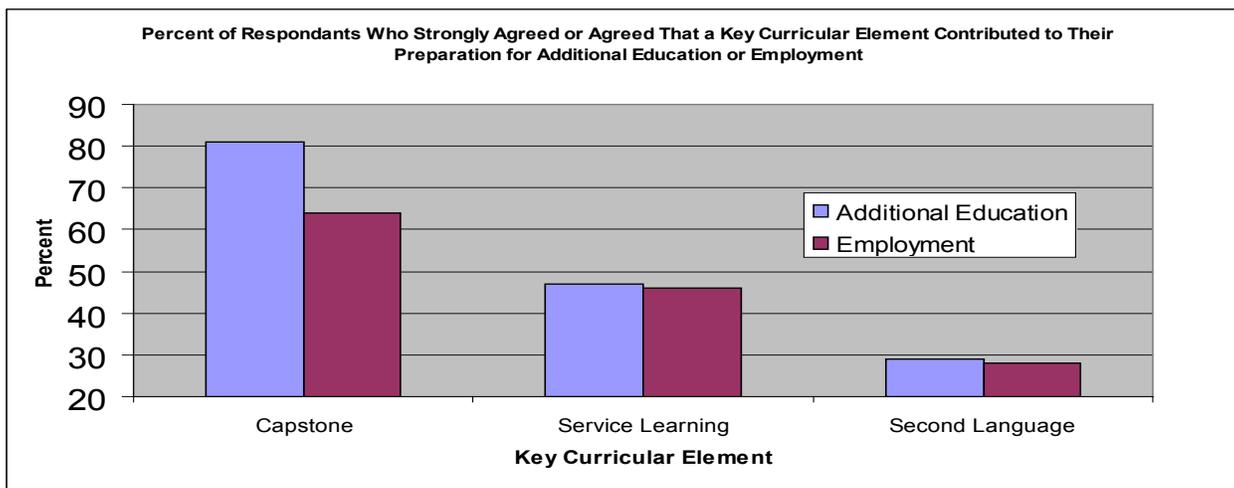
Unanticipated Findings for Further Planning and Development:

Overall, we found very few instances in which native and transfer alumni differed significantly in their responses, suggesting that in general, either the areas we researched are woven well throughout both upper and lower division courses, or that transfers gained similar contributions to their education at their former institutions.

Alumni had many suggestions for CSUMB, which we analyzed for use in campus-wide deliberation and planning. These findings did not come through the structured sections of the survey, but through the open-ended written comments. In ranked order, the positive areas most cited include: interaction with professors, small classes, and diversity of perspectives. The critical areas most cited as needing change include: advising/counseling, rigor, career planning, internships, and a need for a broader range of perspectives among faculty.

5) Meaning for the Institution

These data are self-reported and must be viewed as preliminary with respect to whether our model leads to better outcomes for our graduates, and the research question "To what extent do the CSUMB academic model and core values impact and contribute to professional and personal growth of our alumni?" However, the campus has learned much from this study. We now know that overall, alumni felt that the Core Values contributed to their pursuit of further education and employment. Of the three aspects of the model we studied, the large majority of alumni indicated that capstone prepared them for additional education and employment; in many ways these results mirrored those of the WASC Capstone Study. The results of both studies suggest that capstone is a valuable aspect of our academic model and that further investment in the issues of sustainability and rigor will be important for CSUMB. Almost half of the alumni indicated that their Service Learning experience prepared them for employment and additional education; written comments suggest that many students have powerful experiences in these courses. Less than a third of the alumni indicated that their second language experience here helped prepare them for further education or employment, slightly more indicated that it contributed to their own personal development. The results suggest the value alumni assigned to second language proficiency with respect to its contributions to personal growth, additional education, or employment is not in synch with CSUMB's understanding of the importance of second language literacy and suggests much room for further discussion and study.

6) Using These Data in Campus Deliberations

We presented these findings extensively across campus in Fall 2009 and Spring 2010 to various constituencies such as the Deans and Provost group, the Academic Senate, the University Learning Requirements Operations Committee, the Enrollment Management Council, the WASC Steering Committee, and the Academic Assembly. While changes to our general education model cannot be attributed solely to this research, it is important to note that the new GE model, the Otter Model, is responsive to several issues raised here. We reduced CSUMB's language requirement by one course (from intermediate-mid proficiency, to intermediate-low proficiency), and we dropped the language requirement completely for transfer-ready students who transfer into high-unit majors. The Otter Model also modifies the Service Learning requirement significantly. The new requirement still has lower- and upper-division components, but rather than being separate courses, they have become a 2-unit addition to existing courses, typically in the major. The intention is to draw in faculty who are passionate about learning in a service context, and to give students community-based experience in a course more closely aligned with their interests. Both changes are significant and represent considerable realignment of resources, as well as responsiveness by the institution to input from alumni.

The Alumni Survey has facilitated moving the voices of our alumni into campus-wide discussion and decisions regarding how to better prioritize and resource our academic model. We engaged in this study

to better understand the value of our academic model and have threaded what we have learned through many different discussions and decisions. By giving more attention to the aspects of the model that alumni found most valuable, and working constructively with areas alumni found less valuable, we expect that these decisions are likely to help increase student retention and graduation rates, as well as serve CSUMB's Mission and Vision.

Theme Three: Quality in Teaching and Learning

A. Evaluation of Different Capstone Models

1) Introduction

Capstone has been a significant part of our educational model and a graduation requirement for all majors since the inception of the university, and the capstone festival, held at the end of each semester, is a significant university-wide celebration of student learning. Though it looks different in different majors, capstone is understood to serve as the senior-level synthetic academic experience, drawing on many of the skills and abilities students have gained on their way through their programs. As reported in the CPR, when the visiting team came to CSUMB as part of the Capacity visit in September 2009, this research was well underway. All of the data had been gathered, and we had begun our analysis. We updated the team on our progress during their visit. The research is now completed, has been distributed widely across campus, and we have made good use of the team report and directives of the action letter as we sought to help the campus use what we have learned.

As we began this research, the WASC Capstone Research Group set out not only to explore the diversity of capstone models in various undergraduate degree programs at CSUMB, but also to document the actual capstone experience for students and their faculty mentors. After the initial stages of the investigation, we decided to take a broader and more generative approach, one which would explore significant questions that individual programs could build upon in the future. As such, we decided primarily to compare capstone student and capstone faculty expectations and experiences, and to examine the expectations and experiences of capstone from select faculty and administrators who did not directly teach capstone. Detailed studies of specific capstone projects, the team determined, would best be completed within majors themselves, where faculty are more familiar with the disciplinary and interdisciplinary requirements to be expected of students in particular areas of study. Taking a "big picture" approach, we reasoned, would help CSUMB as a campus to understand the overall experience of capstone at the university in terms of student and faculty expectations; student preparation; the actual experience of completing a capstone project; and the wider impressions that students, faculty, and staff have formed about capstone. In this way, we deviated slightly from our proposal in that we focus here on substance that the research group thought would ultimately prove more useful for CSUMB.

For a full accounting of the methods please refer to Appendix 7 (CSUMB Capstone Study).

2) Methodology

Given the national research, the specific context for our investigation of capstone experiences at CSUMB, as well as a reconsideration of our initial goal to include a close reading of specific capstone projects, the research was eventually guided by these three research questions:

- What do students, faculty, and administrators think capstones contribute to student learning?
- How do faculty and student expectations of learning in different capstone models compare?
- What are different resource requirements of capstone and their implications for sustainability?

To begin the project, we reviewed current literature about capstone and/or culminating learning experiences as well as the 2002 capstone study completed by faculty member Dan Shapiro. We then reviewed all undergraduate capstone course syllabi for the Fall 2007 semester to discern the capstone models being used at CSUMB. To help us understand the overall experience of capstone for students, we conducted a first survey of all capstone students in August of 2008 (which we repeated again in January 2009 and May 2009). The research group developed a three-tier approach framing subsequent collection of data. The following chart summarizes these tiers briefly:

Tier	Characteristics	Data Collected or Reviewed
Tier One: All capstone courses	Explored capstone teaching and learning at CSUMB with a broad brush. Designed to reveal the bigger picture as seen from capstone students and faculty, offering all students in capstone the opportunity to provide feedback about their expectations, experience, and learning in capstone courses.	Review of capstone syllabi Focus group with capstone faculty across the campus Online surveys of all capstone students Review of WASC Alumni Survey (2009), Educational Effectiveness Study Review of CSUMB Student Experience Study (2009)
Tier Two: Select majors for in-depth follow-up research (see below for criteria used)	Explored in more depth how capstone models play out in a variety of majors. The rationale is that we could take a much closer look at a few majors to reveal with greater depth the issues we are exploring in the study as a whole.	Review of capstone syllabi In-depth interviews with capstone faculty, chair of the department Focus group with capstone students in each major selected
Tier Three: Select campus administrators	Explored capstone from the perspective of deans overseeing the delivery of capstone courses in all majors.	Interviews with deans from colleges with capstone courses offered (CAHSS, SMART, and CPS)

Each research group member's disciplinary training and research experience in the scholarship of teaching and learning and/or educational research shaped the approaches used to analyze the data collected. David Reichard and Gerald Shenk are historians familiar with textual analysis, and Patricia Tinsley McGill is experienced in qualitative research methods in the social sciences. Each member did close readings of all interviews, survey responses, syllabi, focus group notes, Alumni Survey findings, and Program Review documents. Reichard and Shenk assembled critical themes about the capstone experience that had been commonly articulated or evident from the texts in question, while Tinsley McGill coded the same data and categorized the coded data into critical themes. The research group then compared their respective readings of the same evidence and from this comparison (over the course of several meetings to discuss our observations) identified what we called major findings (consistently evident across all types of data) and ancillary findings (less prominent across types of data but which the research group considered noteworthy in relation to our research questions).

3) Major Findings and Discussion

The capstone study resulted in four major findings: 1) There is wide agreement across the campus that capstone is a valuable and meaningful learning experience for students; 2) Students' degree of preparation has a strong impact on the quality of the actual learning experience for students and teaching experience for faculty in capstone; 3) Students want more clear and consistent guidance as they make their way through

capstone. Without such clarity, students do not always know what is expected; 4) Faculty should refine and define their roles and responsibilities in terms of teaching and mentoring capstone students.

While CSUMB sources have identified many challenges with capstones, including the degree of student preparation for what is expected of them, the differing levels of advising and mentoring students in capstone courses, and the expressed need for clarity and structure within capstone courses, we find nearly universal agreement that capstones are highly valued by alumni, current students, faculty, and administrators and do contribute significantly to student learning at CSUMB.

That said, the data also reveal a number of important areas where there are significant differences of perception about capstone that are notable. These areas include understandings of the degree of preparation required of students, the actual experience of completing a capstone project, and the sustainability of current capstone models. Major as well as ancillary findings are discussed in depth in Appendix 7 (CSUMB Capstone Study).

4) Conclusions and Using These Data in Campus Deliberations

The capstone research was presented broadly across campus in Spring 2010 including: the Deans and Provost Group, Service Learning Institute, WASC EE and Steering Committees, a meeting of the Department Chairs and Provost, Academic Assembly, to the campus at large, and at the WASC ARC in Long Beach. This research gives insight into how the campus can invest more wisely in capstone and better resource it for long-term sustainability. As we pursue these issues further, we recommend the following next steps: 1) Follow-up research on student preparation of skills and abilities needed for capstone success; 2) Further discussion about the sustainability of models in light of resource needs and availability; 3) School, division and/or departmental focus on understanding and improving capstone models in light of these overall findings; and 4) Capstone faculty dialogue around the study findings.

Indicative of the value of the research for the campus as a whole, it is notable that the individual members of the research group are all working on department-specific capstone follow-up projects. These projects include piloting new models to address concerns about sustainability, using capstone projects as a way to understand student learning in the major as part of program review and/or development and study the viability and desirability of capstone models currently in place for assessing student learning. These experiences of the members of the research group provide strong evidence of the value of this research for the campus as a whole, and provide examples of what next steps might look like at the departmental level.

During Fall 2010 planning week, the campus devoted a half-day campus-wide workshop to capstone and the results of this study in order to use this work to engage the campus in using our findings, and to understand how our recommendations may be implemented in the coming years. Emerging from this discussion was an understanding that capstone support is relatively resource intensive and that issues of scalability, as the campus is planning to eventually double its student body size, as well as sustainability, must be tackled. A number of widely-shared next steps emerged from that workshop, most urgently 1) the need for departments to examine how courses in the majors scaffold student learning to prepare them for the level of performance expected in the capstone; 2) the need for departments to investigate the different models of capstone across campus and adopt elements most valuable to their students; and 3) the need for a campus-wide writing across the curriculum initiative that supports faculty using writing in their courses as well as increasing tutoring support for students in upper-division courses.

Section 3: Additional Required Elements for the Educational Effectiveness Review (WASC Handbook, 2009)

A. Significant Engagement and Analysis of Educational Effectiveness

1) Student Learning in General Education

Overview: We have published outcomes for all of our University Learning Requirements (inclusive of GE areas) (Appendix 8: ULR/GE Learning Outcomes), and we have revised them significantly over the years in our specific university learning requirement learning communities. The learning communities themselves meet monthly throughout the year to maintain currency in the fields of the particular ULR through deep discussion of research in the areas, to discuss assignments relevant to each outcome and the abilities of students to attain the outcomes, and to review various syllabi submitted to the community groups. Thus, these communities are already significantly engaged in analysis of educational effectiveness. But in addition to this ongoing work, CSUMB's ULR learning communities worked diligently and systematically during Spring/Summer 2009 and Spring/Summer 2010 to assess student learning outcomes in many of the general education areas (CFRs 2.3, 4.4, 4.7).

We provide general descriptions of how we conducted the work (development of instruments and rubrics, norming and evaluation of student work) in the body of this section, as well as highlights of the results and actions taken by relevant faculty learning communities to improve student learning based on the results. Appendix 9 (Rubrics for GE Assessment) contains the rubrics that the Faculty Learning Communities (FLCs) developed for their assessment. Analyses, instruments, sample student work, and reports that describe the philosophy, purpose, results, and how the FLCs have use what they have learned from the assessment will be available in the team room.

Faculty Learning Communities (FLCs): CSUMB has thirteen general education areas called University Learning Requirements. FLCs govern and support each ULR; they meet monthly to develop and maintain their GE learning outcomes, certify courses meeting the requirement, develop and share effective pedagogies to address the learning outcomes, and assess student achievement of its learning outcomes. The university invites faculty who teach in these areas to attend the monthly ULR meetings. The chairs of these faculty learning communities serve on a standing committee of the Academic Senate, the ULR Operations Committee, which oversees the faculty learning communities and practices and policies related to the ULRs across campus.

Systematic Assessment of Student Learning: Our institution has a long history of assessment in the GE areas and since 2001 most of the areas have engaged in biannual assessment processes. Until Spring 2009 this assessment focused on faculty development regarding learning outcomes and assessment criteria. Because the processes were voluntary and student work studied was not representative, the results were largely anecdotal, though a popular and useful learning experience for faculty described fully by Amy Driscoll and Swarup Wood in Developing Outcomes-Based Assessment for Learning-Centered Education (2007).

In Spring 2008, in collaboration with the Center for Teaching, Learning and Assessment (CTLA), the ULR Operations Committee developed a framework and methods for systematic assessment in the GE areas. By systematic, we mean that the evidence used to assess student learning comes from comparable assignments, that we collect evidence across multiple if not all sections of a given GE area offered that semester, that we analyze all evidence or a representative sample of student work, that members of the learning community participate in norming sessions in preparation for applying the rubric to student work and that we monitor inter-rater reliability. As this work has developed, the institution has striven to develop high quality, relevant, embedded assessment, using sampling techniques that facilitate a quantitative understanding of

how many of its students actually achieve its GE learning outcomes, and shed light on how to improve instructional practice towards those ends. We direct the structure and budgeting around this process towards each GE area assessing at least one of its learning outcomes at least every other year. At the conclusion of the rating sessions, we tabulate scores and distribute results to the learning communities the following fall for analysis and use in closing the loop (i.e., identifying changes to outcomes, pedagogy and/or curriculum that will improve student learning) (CFRs 2.3, 4.4, 4.7). We are now thoroughly involved and invested in this rigorous and continuous process.

Five faculty learning communities participated in Spring 2009: English Communications, Language, Science, Service Learning, and Vibrancy; in Spring 2010 English Communication, Science, Ethics, and Creative & Artistic Expression conducted assessments. The learning communities took several different approaches in their assessment, including pre and post tests, development of a single rubric that enables assessment of different assignments fulfilling a particular outcome, and a single summative assignment used across all courses. The Language learning community, rather than developing its own rubric, adopted the Classroom Writing Competency Assessment rubric (CWCA) rubric (developed by the California Foreign Language Project) for the assessment of student writing. Chairs of GE learning communities endeavored to engage all of the faculty who teach in their area; almost all of the areas collected student work from upwards of 50 percent of the relevant course sections.

Data Collection and Use of Evidence in GE: At this time, we have earnestly and rigorously conducted systematic assessment of one or more student learning outcomes in Science (twice), English Communications (levels A and B), Foreign Language, Service Learning, Vibrancy, Ethics, and Creative & Artistic Expression. We returned results of the assessment from 2008-2009 to the respective GE Faculty Learning Communities for analysis to determine what could be learned from the assessment and how the results could be used to improve student learning and to develop the next round of assessment.

The results and analysis of the first year of systematic assessment illustrate both student achievement as well as many areas for growth and improvement in both student and faculty learning. The Science and Service Learning FLCs learned valuable lessons on assessment design and alignment of outcomes, assignment, and assessment rubric. The Science community identified improvement in student performance in a pre and post test; however, its most valuable lesson was in assessment design as the test did not engage students in an activity that authentically demonstrated their understanding of scientific method. They saw that deconstructing their outcomes, and developing an assessment far removed from their overall goal, did not give insight into student performance in areas the community deems most important. The following year, the FLC developed an authentic assessment that had students apply their understanding of the scientific way of knowing to a scientific study reported in the popular press.

The Service Learning FLC observed almost no differences between their pre and post test assessment; however, much anecdotal evidence indicated that students were learning. Upon examination, the FLC found problems with both its outcomes, and alignment between the outcomes, instrument, and rubric. The FLC has rewritten its outcomes and is redesigning its assessment tool for the next round of assessment in the 2010-2011 academic year (CFRs 1.2, 2.4).

The other FLCs (English Communications, Foreign Language, Vibrancy and Creative & Artistic Expression) found that most of their students performed at or above the satisfactory level. All of the FLCs gleaned valuable information from their assessment; Science redesigned its assessment, and Service Learning redesigned its learning outcomes, the other FLCs gained insights into improving their teaching. English Communications found that students scored least well in the area most challenging to teach, that in which students are able to identify the values of an author. As a result, they have begun to study the faculty teaching practices of the students who performed best in this area, and to highlight their practices in monthly FLC meetings. Foreign language identified needing to better support writing skills in their 101

and 102 level courses and is developing more writing assignments in these courses. Vibrancy identified the need to better align instruction with key assignments and to better communicate among faculty in order to achieve a higher level of student performance (CFRs 2.3, 2.4, 2.7).

Overall, the ULR faculty learning communities have been very energized by their progress with systematic assessment and are excited to close the feedback loop by improving their instruction. A poster presentation of assessment results will be made during the EE visit.

2) Student Learning in the Majors

We have been committed to outcomes-based education since the moment the university began designing degree programs. As described in Table 7.1 (Inventory of Educational Effectiveness Indicators), each major has defined a set of learning outcomes required for earning a degree (Appendix 10: CSUMB Major Learning Outcomes); these major learning outcomes have driven curricular design in our degree programs since CSUMB opened its doors sixteen years ago. Students connect with MLOs in course syllabi; particular focus is put on them in major proseminars as well as capstone courses. Completion of MLOs provides the basis for graduation audits and most degree programs assess one or more MLOs in student capstones. Student capstones are beginning to provide an effective window into the assessment of MLOs, and significant revision of many degree programs' MLOs has taken place through program review.

With the introduction of the new program review process and the annual assessment initiative, faculty in the majors devote a deeper, more intentional, and more sustained investment in assessment of student learning outcomes. This investment represents significant growth in our relationship to learning outcomes and the pedagogies that support them.

The campus approach to assessment of student learning in the majors and the application of those assessments to program improvement has stressed meaningful but modest undertakings and flexibility, and acknowledges that assessment involves a substantial learning curve. We provided departments with a set of questions that guide: 1) their development of an annual assessment plan; 2) their report on the progress of the plan; 3) the learning that resulted; 4) their next annual plan; and 5) how the new plan emerges from work already done. Through conversations among department faculty, consultations with the CTLA director, and faculty participation in local and national workshops, conferences, and institutes, faculty engagement in assessment has increased and substantial improvement in the curriculum has occurred. Several examples will illustrate how programs are designing activities that address their most significant concerns (CFRs 2.4, 2.5, 2.6).

Example 1: In 2009-2010, Teledramatic Arts & Technology (TAT) was emerging from a period of transition that had culminated in its moving from the College of Science, Media Arts & Technology to the College of Arts, Humanities & Social Sciences. The faculty chose to focus their assessment activities on the critical issue raised in TAT's last program review: the need to redevelop its Major Learning Outcomes. TAT drafted the new MLOs through a series of conversations and collaborative writing activities, after which the faculty examined a random sample of student capstone portfolios and productions to confirm that the MLOs reflected the outcomes they valued and wanted to see demonstrated in student work. They used that process to make final revisions to the new MLOs, which will go to the Academic Senate in Fall 2010 for approval. This is an example of using student work not strictly for assessment of student learning but to confirm the alignment of disciplinary values and skills with the MLOs. Through work undertaken in 2009-2010, the TAT faculty identified its focus for 2010-2011: revision of the media studies curriculum to emphasize the core values of ethics, social justice and experimentation by using assessment of student work in a number of courses (CFRs 2.4, 2.7).

Example 2: The Psychology major was started at CSUMB in 2007. The number of students in the major has grown very rapidly, while the number of tenure-track faculty (3) has grown more slowly. The assessment initiative required that faculty take some time out of the program building work to reflect on its

outcomes—and that provided an opportunity to share concerns regarding the work students are producing in the capstone. Based on what they saw, they determined that formal assessment of performance on the outcomes was not necessary to conclude that changes have to be made. As in TAT, the Psychology faculty examined the program's MLOs. The work with the MLOs, however, took a different direction. Rather than rewrite the MLOs, with which faculty members were generally satisfied, the faculty created a curriculum map. The map identifies which courses address specific outcomes and which ones need to provide more careful scaffolding. The faculty used a collaborative process to assure that each outcome received sufficient attention and that each course outcome had been intentionally scaffolded through previous courses. Their next step, in 2010-2011, will be to pilot assignments that link theory to application in several sequential courses (100: Introduction; 300: Proseminar; 400: Capstone), and to assess a sample of student work on each assignment (CFRs 2.2, 2.4).

Example 3: Human Communication (HCOM), a highly interdisciplinary program, focused its attention on how well students are integrating the disciplines in their concentration to construct a more complex understanding of the issue they research in the capstone. Four faculty members began by informally interviewing students in the pre-capstone course (Research Methods), collecting their written coursework, and independently coding the work for evidence that students were able to "integrate trans-disciplinary knowledge." What they found is that many students talked and wrote about interdisciplinarity, but often limited their work to a single discipline or drew on multiple disciplines but lacked disciplinary depth. The study group brought its findings to the full department faculty, which decided to pilot a new version of the capstone in 2010-11, modeled on Marquette University's Full-Circle Seminar. In order to deepen students' understanding of how interdisciplinary knowledge is produced and applied, it will bring together students from a range of HCOM concentrations to focus on a single topic or issue, to allow each student to consider the topic from his/her own concentration's perspective, and to learn from each other how different areas of study address the topic. In addition, the faculty will design a pilot version of the capstone course for Spring 2011, to build on the work of the pilot pre-capstone. HCOM will assess the impact of these changes once again, through informal student interviews and assessment of written work (CFRs 1.2, 2.2, 2.4, 2.5).

Example 4: In 2009-2010, the School of Business focused on its written and oral communications learning outcome, a concern that emerged in its program review and was addressed in the program improvement plan, which laid out a multi-year assessment schedule. Working backwards from concern that students entering the capstone lack the requisite skills to produce a professional report, the faculty sampled student work from BUS 304, which serves as both the Graduate Writing Assessment Requirement and the curricular gateway to upper-division communication skills. Faculty collaborated on the development of rubrics to assess written and oral presentation and held a norming session at a faculty retreat where they discovered that coming to a shared understanding of the rubrics' elements required substantial discussion, and was concluded in a second retreat. In applying the writing rubric, they concluded that BUS 304 should be weighted more heavily toward developing writing skills and less on disciplinary content and that assignments and expectations across sections need to be more standardized. The extent of standardization across sections is still under discussion, but one element that is being proposed is the weighting of instruction and grading for presentation skills v. subject content. The specific revisions to BUS 304 will be resolved among faculty in Fall 2010 and new assignments will be piloted, while a subgroup of the faculty begins to turn its attention to planning how to assess its next outcome: critical thinking.

3) Student Learning in Co-curricular Programs

We are making significant progress on assessment of student learning in the co-curricular programs and services provided by Student Affairs and Enrollment Services. At the time of the CPR report and visit, assessment activities in these areas focused primarily on tracking participation and attendance and evaluating customer service and student satisfaction. Since that time notable progress has been made to move the departments and the divisions from assessing student satisfaction to student learning.

Example 1: The campus invested in a web-based structure designed to facilitate the assessment of student learning. Over the past year, senior leadership, relevant middle management, and staff in each department worked with a consultant, Dr. Ken Gonzalez, to develop clear outcomes and assessment plans. Departmental effectiveness dashboards for each department were developed for the 2010-2011, 2011-2012, and 2012-2013 academic years. Dashboards link to departmental performance indicators, primary interventions, and learning outcomes and assessment summaries that connect to the university's strategic goals. Dr. Gonzalez made a series of campus visits where he worked with each department to develop the performance indicators, primary interventions, and learning outcomes to be displayed and tracked over time on the dashboards. A link to the dashboards and current assessments will be available in the team room.

Example 2: In 2010-2011, the Personal Growth and Counseling Center identified one performance indicator for their area: reduce repeat alcohol-related sanctions. The primary intervention is a decision-making workshop offered to students. The assessment cycle for the intervention is fall and spring semesters. The center served students with a first alcohol sanction. Through a group workshop, the center separated learning outcomes by knowledge, skills, and dispositions. For this example, all learning outcomes are related to knowledge. "Students will be able to:

- list three to five factors they take into consideration when making decisions;
- identify two criteria involved in their decision-making processes that lead to healthy and positive outcomes;
- reflect on poor decisions they have made and articulate two common factors that have lead to those decisions;
- articulate in writing the role that friends, community members, faculty, parents, and/or self-defined role models play in their decision-making processes;
- describe two scenarios where their decisions changed another individual's (friend, family member, faculty) or group of individuals' experience, as well as how they knew the person or group's experience was changed; and
- identify at least three of King and Kitchener's Ethical Principles and apply them to a decision they made within the past 30 days."

To assess student learning, the department will utilize pre-and post intervention instruments. In the next academic year (2011-2012), departments will identify two additional performance indicators (decrease stress levels and increase self-confidence), and they will add one primary intervention (yoga, art, or meditation group) (CFRs 2.3, 2.11, 4.6).

Example 3: In Student Affairs and Enrollment Services, programs and services largely align with the university strategic goal to "increase student success." The student learning outcomes of these departments focus heavily on knowledge of campus resources while the accompanying dispositions concentrate on the students' likelihood to utilize those resources. The primary interventions are central departmental programs applied to the target group. Most departments currently focus on developing the mechanisms to collect the baseline data for the dashboards. Many departments began their assessment work utilizing quantitative performance indicators and are now considering additional assessment measures.

Many lessons have been learned through this developmental process, and more work lies ahead. We understand the importance of the assessment of student learning becoming "everyone's business" so that changes in staff and leadership do not disrupt the progress and that ultimately this work will become self-sustaining. The evidence of student learning in the co-curriculum is developing and units have appropriate support. The current quantitative focus provides a foundation of evidence drawn from institutional data and reports. Our next steps will include a broader engagement of staff in the assessment of student learning

in a variety of ways. The CTLA director is planning a series of ongoing workshops in Spring 2011 to support staff and facilitate the on-going success of this project. One strategy being considered to nurture the commitment to the process is convening cross-department focus groups that concentrate on a thematic approach to student learning.

4) Support for Teaching, Learning, and Assessment

The mission of the Center for Teaching, Learning, and Assessment is to support faculty and students by guiding the development of the pedagogy, curriculum, and assessment necessary to promote the goals and outcomes of the university's general education, majors, and graduate curricula. To this end, it provides resources, workshops, and individual and program consultations in response to emerging areas of practice, expressed interests of faculty, and opportunities to support student learning of our articulated outcomes. Staffed by a full-time director and a full-time administrative support coordinator, the CTLA provides support to all faculty members (tenure-track as well as full- and part-time lecturers). Faculty and staff representing all the colleges, the library, the Center for Academic Technologies, the First-Year Seminar and general education comprise its advisory Committee. In Fall 2010 the Academic Skills Achievement Program (ASAP), the campus tutoring center, became part of the CTLA to better connect faculty to ASAP's work.

Some of the following highlights of the CTLA's work in terms of hosting, conducting, and/or facilitating workshops and faculty learning communities (locally called "teaching co-ops"), illustrate how CTLA activities enhance teaching effectiveness and student learning (CFR 3.5).

Assessment of Student Learning: We recognize assessment as a rich area for enhancing curriculum and pedagogy, and also an area that some faculty face with anxiety. We have, therefore, worked closely with faculty to assist them in identifying priorities for assessment (i.e., what are they most concerned about or least satisfied with regarding student achievement of their learning outcomes) and encouraged faculty to see themselves as learners in the process, so that their expectations are realistic and their undertakings are meaningful but not overwhelming. Some of the approaches we have taken to supporting this work are:

> **Example 1:** Because assessment of student learning is a critical component of our program review process, we brought together teams from the programs conducting reviews to work together on developing rubrics for assessing the outcomes they had identified as priorities within their departments (CFRs 2.4, 2.6, 2.7).

> **Example 2:** Faculty workshop on Program Improvement Plans to both clarify and initiate the process and to encourage collaboration across departments.

> **Example 3:** Most departments have brought in the CTLA director to consult on the development of their program review self-studies and improvement plans.

> **Example 4:** The provost and CTLA co-hosted a day-long workshop on "closing the loop," conducted by Swarup Wood and Amy Driscoll (authors of "Developing Outcomes-based Assessment for Learner-centered Education"). They engaged faculty in the process of moving from outcome to assessment to improvement of pedagogy and curriculum.

> **Example 5:** The CTLA director has served as team leader for two teams (one from the College of Professional Studies and one from the College of Arts, Humanities & Social Sciences—a total of two deans and nine faculty members from 5 different departments) to AAC&U's Engaging Departments Institute. The institute provided rich materials and consultations on assessment and the teams are incorporating what they learned and designed at the institute into their departments' program review and assessment work. We see these departments as laboratories for experimentation with approaches to assessment that we can highlight across the campus.

Mathematics/Statistics and Quantitative Reasoning: Faculty in majors across campus express concern that students reach them unable to apply the mathematics and statistics necessary for their fields. The CTLA has brought together a group of faculty including those who teach the mathematics and statistics prerequisites with faculty in business, sciences, social science, and computing to identify how we can improve this situation. We have focused on the need for lower-division courses to preview how the mathematics and statistics will be used in later courses, and for faculty in the majors to help students recover or transfer what they learned by designing activities and assignments that incorporate relevant math/stats in the way they learned them. The group has begun designing brief, interactive online modules that provide review. Importantly, however, the group has concluded that part of what they need to address with students are more generic issues of study skills, setting priorities, and managing time. The first of these modules has been introduced to faculty and will be available for them to use in Fall 2010. The group has submitted a grant application to NSF's Transforming Undergraduate Education in STEM program, which would provide funding for faculty from across disciplines to team with math/stats faculty to improve transfer of learning. In addition, the CTLA director is PI for a three-year grant from Lumina Foundation for Education that brings CSUMB into collaboration with two local community colleges to improve developmental courses in mathematics and writing (CFRs 2.8, 2.9, 2.10).

Technology, Accessibility, and Universal Design for Learning (UDL): Efforts to improve effectiveness for all student populations have sparked an interest in UDL. While we initially adopted UDL to serve students with disabilities, we have learned from its implementation that many if not most students benefit from its principles of providing multiple means of representation, expression, and engagement. The CTLA has worked closely with the Center for Academic Technologies and the Office of Student Disability Resources to support the dissemination of these practices among faculty through workshops as well as a teaching co-op devoted to UDL supported by a subaward from the Dept. of Education through Sonoma State University's grant for Ensuring Access through Collaboration and Technology: Partnerships, Technology, and Dissemination. In addition, the CTLA has offered teaching co-ops and workshops on the use of "clicker" technology and e-portfolios to enhance student learning (CFRs 3.6, 3.7).

Scholarship of Teaching, Learning, and Assessment (SoTLA): The CTLA has encouraged faculty exploring and implementing innovative teaching practices to turn a researcher's eye to that work. It provides faculty with travel funds to present on their teaching at conferences and small research grants to help them cover costs associated with implementing new approaches. In addition, the director consults with faculty one-on-one and by facilitating a teaching co-op to design solid research plans for SoTLA work. Thanks both to our faculty's energy for teaching and our retention, tenure, and promotion system that gives serious weight to SoTLA work as scholarship, 20 faculty members showed up for the February 2010 kick-off of the teaching co-op on "Our Teaching as a Site of Scholarship" and 12 of them actually completed research plans for their projects by May 2010 (CFRs 2.8, 2.9).

Over the past two years, the CTLA has hosted 18 semester-long teaching co-operatives in which about 114 faculty members have participated. The CTLA has funded 34 faculty members to travel to conferences at which they made presentations on their teaching. Thirty faculty members have provided CTLA workshops on campus.

5) An Analysis of the Effectiveness of the Program Review Process

Introduction: The EER requires an evaluation of the effectiveness of academic program review. The timing of the EER at CSUMB has provided us two years of implementing a new program review process that was developed and adopted by the Academic Senate in 2007.

Program review had been revised in several key ways: it is now a collective process rather than an individually developed report; program review embeds assessment of student learning; and the self-study requires analysis

of enrollment, retention, and assessment data. CTLA introduces the revised program review process to departments the semester before each begins the new self-study process (CFRs 2.7 4.3, 4.4).

Twelve degree programs have now conducted a program review using the revised model: Business Administration, Education, Environmental Science, Technology & Policy, Global Studies, Human Communication, Information Technology & Communication Design, Interdisciplinary Studies with an emphasis in Instructional Science and Technology (MA), Liberal Studies, Social & Behavioral Sciences, Public Policy, Visual & Public Art, and World Languages & Cultures.

Academic Program Review, 2008-2010: The self-study process asks for assessment of student learning in the MLOs, an in-depth review of the curriculum of the major, its concentrations, and major learning outcomes. The Center for Teaching, Learning, and Assessment supports faculty with information regarding assessment of student learning and design of an overall approach to the program review. The self-study protocol addresses student demand, enrollment analysis and program viability, program quality, assessment and evidence of student learning, faculty composition, satisfaction of current students and alumni, and resource analysis. Departments focus the program review on a concern or question around which its exploration can be organized. The office of Institutional Assessment and Research provides enrollment, retention, and attrition data and assists faculty in interpreting these data (CFR 4.5).

The first program reviews using the revised model demonstrated strengths and weaknesses of the model. Departments began working collectively on issues of program assessment, assembled the broad data on their curricula, and examined trends since the last program review. Areas that needed improvement included: 1) a tendency by departments to be so broad and comprehensive in their approach to the program review that they were not able to focus on a central concern; and 2) assessing a small sample of student work that could not be compared to earlier assessment results. In addition, many departments are unfamiliar with the quantitative data provided by IAR and the analyses of these data undertaken by departments were uneven.

As a learning institution focused on continuous improvement, the director of Center for Teaching, Learning, and Assessment, and the associate vice president of Academic Planning and Institutional Effectiveness developed strategies to better make assessment of student learning a routine, regular aspect of faculty and departmental work. Two such strategies included annual assessment plans and an in-service training regarding the role of the deans in program review. We implemented the annual assessment plan so that faculty can assess student learning in major learning outcomes over multiple years, enabling them to examine robust samples of student work and use their findings to make incremental changes through continuous feedback loops. The provost laid a foundation for on-going assessment as she instituted the practice of requiring annual assessment plans and identified a day in the fall and one in the spring as "assessment days." Faculty devote these days to assessment activities. We purposely do not schedule regular department and college meetings on these days. Faculty have begun to experience on-going assessment as a critical aspect of planning and carrying out assessment in degree programs.

Building depth and expertise in assessment and accumulating assessment data over time is a developmental process. We spent a decade developing expertise with learning outcomes; we are now developing expertise in assessing student learning of those outcomes and attending to the feedback loop by conducting faculty development on assessment planning, assessment activities, and the use of data to improve curriculum and pedagogy. The provost has sent multiple teams of faculty to WASC assessment workshops and to AAC&U meetings at which assessment is the focus. Connections are developing between annual assessment plans and the Program Improvement Plans (PIPs) of program review.

As a second strategy, we implemented an in-service experience regarding the role of the college deans in program review. The provost, associate vice president, and director of the Center for Teaching, Learning and Assessment met with the deans during the summer and examined completed program reviews and clarified

the deans' role. The final agreement among the provost, dean, and department regarding its PIP is a product of the dean's engagement with each party. These strategies are important resources CSUMB is committing to this work.

External peer review is a significant part of the CSUMB program review process. Two faculty colleagues from similar programs, one of whom is typically from the CSU, conduct external reviews. We are very proud that an observation made by all the external reviewers to date is that student-faculty relationships are strong and warm. Students have told reviewers that their relationships with faculty are key to their retention at CSUMB. The faculty at CSUMB are described by external reviewers as engaged and deeply committed to teaching and to their students. The reviewers are impressed with what they find here. Another common observation by external reviewers is that programs have too many major learning outcomes and are attempting to accomplish too much. Reviewers encourage faculty to focus programs and limit major learning outcomes. From there, the findings of the reviewers vary and they identify strengths and weaknesses of curricula, program governance, etc. Program faculty are taking the external reviewers' reports into account as they develop their PIPs.

We designed the Program Review Committee to proceed as a review panel that deliberates and provides feedback guided by a protocol of questions listed in the Program Review Procedure Manual (Appendix 11: Program Review Procedure Manual). The members of the Program Review Committee, in 2007-2008, 2008-2009, and 2009-2010 included members of the Undergraduate Studies Committee and the Post-Graduate Studies and Research Committee of the Academic Senate. The committee is composed with a view to the programs being reviewed each summer; it does not include faculty members of the programs under review. To date, the faculty have not found the feedback provided by the Program Review Committees to be very helpful. While this is not a unique experience to CSUMB, it is something that we want to shift. The Academic Senate uncovered this concern in its evaluation of the process CSUMB is using, and we will address it in the revision to the program review procedures undertaken in 2010-2011. (More on the Academic Senate's evaluation of program review is provided below.)

The development and approval of Program Improvement Plans is the final step of the program review process. The department considers the results of the self-study, the external review, and the feedback of the Program Review Committee and then crafts a PIP that defines the steps the department will take to address concerns and further improve the academic program. The approval of plans by the dean and the provost communicates confidence to the department that there is agreement and support for their plans for program improvement. In our recent experiences, the development of a PIP is a highly iterative process between the department and the dean. The iterations are taking longer than we planned, but the completed PIPs include phased program improvement actions, agreements about staffing and resources, identification of future planned assessment activities, and they are documents which capture significant agreement among the department, the dean, and the provost regarding improvements to be undertaken in the coming years (CFRs 2.7 4.3, 4.4). Completed PIPs will be available for review in program review portfolios in the team room.

The Academic Senate Evaluates Program Review: In Fall 2009, we conducted a survey of Program Review Committee members (2007-2009) and in March 2010 the chair of the Academic Senate hosted an evaluative conversation about the revised program review process with faculty whose departments had engaged in the three-semester process of self-study, external review, and program improvement plan development.

In broad terms, the Academic Senate chair asked whether and how the program review procedure as it stands "enhanced your ability to assess your program's learning objectives in terms of curricular alignment and in terms of assessing student achievement of those curricular goals." Participating faculty expressed a general agreement with the idea that the use of program review enabled them to achieve particular objectives in their degree programs, including an opportunity to look at "local" and "global" issues pertaining to the

major, to push forward with desired initiatives for specific kinds of program development that heretofore had no evidentiary backing, to develop both small scale and large scale curricular reform (from a change in a particular major learning outcome to a change in major structure), and to create the foundation for future planning relative to additional majors (CFRs 4.1, 4.2, 4.3).

In terms of conducting program review, the resources for engaging and accomplishing the work varied, from majors where there is an ongoing and deeply practiced culture of assessment, which was drawn upon easily to develop the snapshot of program review, to programs with little expertise in this area, or programs with very few faculty and thus very small pools of time to develop the self-study. Faculty also noted the importance of administration allocating resources to assist in the development of the program review self-study, regardless of the ongoing nature of data collection and review. The articulation of data collected over time to a formal seventh year reporting process required more resources and faculty time.

Faculty noted a number of places where the Program Review Procedure Manual could be improved to better reflect the actual and differentiated practices of the majors. Further, the procedure manual lacks a fully interwoven focus on student learning and this is an area many agreed could be much improved. Our current process of developing and implementing annual assessment plans and our nascent culture of continuous improvement may be the shifts necessary to find a better expression for assessment of student learning included in the program review process. One improvement to program review would be to include an account of program improvements made since the last program review. A program review might include an evaluation of the implementation of the Program Improvement Plan and a discussion of what has been learned with those improvements. Nevertheless, program review brings attention to the degree programs' assessment practices and has been an encouragement for programs to develop ongoing assessment protocols including implementation of feedback loops focused strategically on particular programmatic interests and concerns.

As it stands, the revised program review model focuses on academic programs. Since some departments/divisions/schools offer more than one degree program, this approach results in mixing analyses of the degree and the department or division in such a way as to obscure some of the distinctive elements of each. One of the areas in need of further clarification and development is the treatment of the so-called "service courses," those offered by the department but not actually part of the majors. These predominantly GE courses matter deeply in terms of departmental coherence and resourcing, and yet they are distinct from the major offerings and performance. The Program Review Procedure Manual (provided in Appendix 11) may need to be revised to address this more effectively.

We are happy to report that student feedback is integral to program review. It appears to be used somewhat variously although we routinely solicited student feedback through a survey that was administered to alumni. Several departments conducted a student focus group in the course of the self-study process, and also held town-hall-style meetings among current students and external reviewers. The alumni survey is part of the program review procedure and provided excellent snapshot data. In addition, enrollment data developed in Institutional Assessment and Research, which note students' entry as juniors and graduation rates within the majors, is regularly reported regarding time to degree (CFRs 4.5, 4.8). IAR also made institutional survey data from students in individual programs available: this data illuminated aspects of student experiences. One program in particular highlighted its current use of a reflective essay as part of the senior capstone; this essay enabled students to articulate their synthetic understanding of the work in their major and its value in their career trajectory. The most effective uses of student feedback demonstrate the value of these data in program review. When we revise the program review procedure, it will be beneficial to invite examples of program improvement implemented in response to student feedback.

Faculty raised comments in three streams regarding program review, budget, and planning. The first focused on actual resources to departments to conduct program review. Faculty noted broadly that the burden on

the lead author and the staff of the department is discrete and high. We need to allocate particular resources and support for this part of the process. While the compilation of the documents takes place once every seven years, it does not happen in a vacuum that is removed from other full time duties of both the lead author (typically department chair) and the staff. For the second, faculty found the budget and planning feedback internal to the departments useful in that it helped bring evidence to the alignment of priorities in terms of available resources, and helped develop a case regarding the need for additional resources, be they faculty, staff, or infrastructure. Likewise, for the third question of larger feedback to Academic Affairs, program review enables an evaluation of cost-benefit and efficacy across majors in an evidence-based manner and can drive resource allocation discussions in the larger field of the university.

In summary, following its 2009-2010 deliberation regarding the full cycle of program review, the Academic Senate will update the Program Review Procedure Manual in 2010-2011 to implement beneficial and useful revisions and enhancements. It will also incorporate the new university curriculum committee in the program review procedure.

Examples of Program Improvement Decisions: Academic program review provides the most regularized feedback loop in Academic Affairs. Using such reviews to examine enrollment, retention, graduation rates, and student learning is central to the self-study. External reviewers provide an outside lens on the curriculum within the context of evolving disciplines and they attend to student and faculty experiences at the university.

Previous examples of this important work are already summarized in the "Strengthening Feedback Loops" section (Section 1, Part A). They include descriptions of Information Technology and Communication Design, and Environmental Science, Technology & Policy's experiences with recent program reviews and how these programs' self-studies illustrated areas needing improvement and actions taken on the part of ITCD and ESTP to improve these areas (CFRs 3.8, 4.1, 4.2, and 4.4). Below we describe additional examples from the department of Mathematics & Statistics.

Example 1: The department of Mathematics & Statistics conducted a program review as part of its preparation to propose that a pilot math major be approved as a regular program. The program review occurred in year four of the five-year pilot program and highlighted areas of learning, progress, and those that needed improvement in the major. The analysis and review of the program conducted by the department and the commendations and recommendations of the external reviewers became part of the program proposal submitted to the campus and the Chancellor's Office. The math program conducted its review in 2006-2007 on the cusp of the Academic Senate's work to revise program review. The department used both the "old" program review process and the proposed "revised" process as it engaged in a self-study intentionally focused on meaningful analysis and program improvement. They examined what was occurring in the pilot math program, determined how to improve it, and implemented tactical and strategic curricular improvements to enhance the effectiveness of the mathematics program at CSUMB. This demonstration of analysis and improvement is foundational to the CSU proposal process for moving a program from pilot status to regular degree program status.

In its self-study the Mathematics & Statistics department concluded that although the program had been able to attract students and demonstrate remarkable growth within its first three years as a new major at the university, the program, and the success of its students, would be strengthened by several curricular changes (CFRs 2.1, 2.7, 2.10). They reasoned that "by focusing continuous improvements at the foundation of the major, the effects will trickle upward through the upper-division courses, providing our majors with a strong mathematics program" (Academic Program Self-Study, Department of Mathematics & Statistics, 2007, p. 37). The changes identified and implemented by the department were: 1) strengthen the Math 130 pre-calculus course, by coordinating across its multiple sections, adding a required lab (Math 130L), and implementing an online homework system; 2) strengthen the calculus sequence by updating the text

selection and the required labs (Math 150L and 151L) in conjunction with science colleagues; and 3) implement revisions to Math 250 and Math 280 to enhance the development of particular skills essential for student success in higher mathematics. In addition to numerous commendations regarding the new math major, the external reviewers recommended changes in four areas: service courses, courses for majors and minors, faculty, and policy.

The department made the changes cited above, and the improvments have been very successful. They adopted a new text for the calculus sequence, Math 150, Math 151 and Math 250, aligned the calculus labs much more thoroughly with the lecture, and created more challenging lab projects. The number of math majors has grown from 52 in the Fall of 2007 to over 101 in the Fall of 2010 (CFR 2.6). The math program at CSUMB received the approval by the Commission on Teacher Credentialing (CTC) as a Subject Matter Program in Mathematics for Teaching in the Spring of 2009. We also offer a number of scholarships to the math students through federal/state grants, such as Noyce Scholarships and the Math and Science Teacher Initiative.

Example 2: The external reviewers recommended redesigning remedial mathematics (Math 98) and math faculty tackled this recommendation in Summer 2007; we implemented the remedial courses in Fall 2007. We are very pleased with the results of these changes; the successful completion rate of students in remedial math at CSUMB has risen from 70 percent in 2006 to 93 percent in 2009, and the department received several grants to further develop this successful model of the developmental math courses.

Example 3: The department also changed the math curriculum to now require introductory programming in response to the external reviewers' recommendation (CFR 2.7). This new requirement has had a positive impact for our recent graduates seeking jobs in government service and industry. The recommendation to hire a Ph.D. statistician led to a successful search in the Spring 2010. Dr. Judith Canner, the top candidate from the North Carolina State University, joined the Mathematics & Statistics Department in the Fall of 2010, and she is taking the leadership role in developing the new Statistics Minor program. Finally, faculty carefully discussed the recommendations about departmental policy, and the department established new policies on late homework, make-up exams, and grades for math courses. The department has been gathering information regarding assessment and grade distributions for math courses and plans to use this information to understand the relationship between grades and levels of student achievement.

B. Further Development of Student Success Efforts: Retention, Graduation Rates, and the CSU Graduation Initiative

1) Required Element: Student Success Report

The WASC Commission Action Letter to California State University, Monterey Bay, dated March 3, 2010, identified several directives, one of which is "Improvement of Retention and Graduation Rates." The letter specifically asks us to incorporate our response to the issues in the action letter in our EER report. This section of the report presents our significant work in this area and serves as our response to those directives.

Background: With the arrival of Dr. Dianne Harrison as the new president of CSUMB in 2006, the campus began to focus seriously on improving student success. The president charged the newly hired provost, Dr. Kathryn Cruz-Uribe, with improving student retention (CFR 1.3). Freshmen retention had actually dropped over time, from a high of 81 percent for students who entered in 1998 to a low of 65 percent for students who began in Fall of 2006. Dr. Cruz-Uribe's arrival on campus also coincided with the campus preparation of our WASC Institutional Proposal. Thus, as part of our Capacity work, we proposed to conduct a retention analysis that would inform interventions to increase student success.

As previously discussed in the Theme One: Student Success Initiatives," section of this narrative, our retention study began in 2007 with the office of Institutional Assessment and Research, which collected available recent data regarding the demographics and characteristics of students who persisted at CSU Monterey Bay and those who left. The campus Educational Effectiveness Student Success group (Theme One) examined these data. This was the first time we had conducted such a study at CSU Monterey Bay, and it proved to be very enlightening. Some of the data were surprising; for example, we learned that we are losing Under Represented Minority and non-URM students at the same rate. We learned that twenty-five percent of the freshmen who leave are in good academic standing, and unsurprising, we learned that the stronger a student's GPA, the more likely they are to remain at CSUMB. We also learned that the ethnicities of students who left align proportionally with those of the general student population.

Following this initial analysis and discussion of the retention data, the campus invited a nationally known consultant, Teresa Farnum, to campus to facilitate a University Retention Retreat in Spring 2008. A large group of faculty and administrators came together to examine these data, and comparative data from other CSUs, in order to identify particular populations to focus upon for improved retention, and to identify potential intervention strategies. The campus continually updates the retention study with new annual data, and continues to re-examine it in various venues. Campus constituents have also engaged in the analysis of data from other sources, including our results from the National Survey of Student Engagement (NSSE), the Noel-Levitz Student Satisfaction Inventory (SSI), and our own "CSUMB Experience Survey." (CFRs 1.2, 2.10, 4.1)

As a result of these campus deliberations, we implemented a number of strategies to improve retention and graduation rates. We also discussed many of these, particularly those focused on retention, above, under "Theme One: Student Success Initiatives." In addition, we have focused on helping those students who do persist to move more efficaciously towards graduation. Projects in this area include improving our advising materials, developing clear and accurate degree pathways, implementing degree audit in our student information system, and our "Super Seniors" project.

All CSUMB deans are actively engaged in the Super Seniors project which focuses on students with 140 (or more) semester credit hours who have not yet applied to graduate. We require these students to meet with their college dean to ensure a clear graduation plan, and that they are only taking classes absolutely needed to graduate. We preclude super seniors from changing their majors, adding additional majors, or establishing new minors. We put holds on their registrations, which can only be lifted at the dean's behest after a successful meeting with the student.

Deans learned from the Super Seniors project that some of the students did not even know they were supposed to apply to graduate—in essence, they were waiting for someone to tell them. This led to the development and implementation of a detailed communication plan that includes the following notices now sent individually to students:

Students approaching 70 units:	Receive a reminder that they must declare a major if they have not yet done so.
Students with 90+ units:	Are invited to confirm their academic plans with an adviser and apply to graduate.
Students with 120+ units:	Are invited to meet with an adviser and apply to graduate. They are also informed that the following semester they will have a registration hold until they meet with an adviser.
Students with 140+ units and no graduation application:	Are told to meet with the dean. They may only take required courses, and may not change major or add options now. Registration put on hold for the upcoming semester until they meet with the dean.

This project is showing evidence of success. In Spring 2009, we identified 81 super seniors. In Spring 2010, only 42 students fell into this "super senior" category, 16 of whom were left over from the Spring 2009 group (i.e., they never contacted the dean). Thus, we only have 26 "new" students in this category. We are excited to be making such gains in getting word out about progressing to graduation.

The Super Senior project is an example of the high priority our campus gives to increasing student success. The deans themselves each spent significant amounts of time with their super seniors. The background work done by the Registrar's Office to support this project is also very time-intensive. "Increase Student Success" is one of the four major goals in our 2008-2018 campus Strategic Plan, with "Maximize retention and graduation rates" one of the key initiatives under this goal. This is a lofty statement, but we have significant and specific projects (such as the Super Senior project) continually underway that address this goal (CFRs 4.1, 4.3).

Recent Results: As reported in our CPR and summarized above, we have examined our retention data extensively, and do so on a continual basis. We have enacted interventions and strategies based on what we have learned about retention and graduation rates, and the experiences of our students on campus. And we have had positive results. We are very pleased to announce that we have reversed the downward trend in freshmen retention noted in the commission action letter. As seen in Figure 2 (Section 2, Part 2), we have achieved a significant increase in freshmen retention in each of the past three years. Our 6-year graduation rate has also shown improvement even in the short term, from 35 percent for first-time freshmen who began in 2000 to 42 percent for FTF who began in 2003 (source: CSU Monterey Bay IAR Factbook).

2) Recent Developments: The CSU Graduation Initiative

In the Fall of 2009, the CSU Chancellor's Office launched a bold new initiative aimed at improving the graduation rates for the CSU system. The initiative is based on the "Delivery Unit" methods used by Sir Michael Barber of Great Britain. Barber was the head of Tony Blair's Delivery Unit, charged with making progress on specific targets during Blair's second term as Prime Minister. The Delivery Unit methods focus on the use of good data, setting clear targets and trajectories, and consistent, regular, and frequent stock-taking and reporting.

The Chancellor charged each campus in the CSU to develop a concrete delivery plan for improving its 6-year graduation rate for First Time Freshman (FTF), beginning with the class of 2009. If each campus obtains a graduation rate in the top quartile of its peer group, the system would improve its overall grad rate by 6 percentage points. In addition, the system is addressing the "achievement gap"—the difference between the graduation rate of under-represented minority (URM) students versus non-URM students. The goal is to halve the existing achievement gap between these groups of students.

The CSU Graduation Initiative work is part of the nationwide "Access to Success" project of the National Association of System Heads and The Education Trust. As part of the project, The Education Trust compared each campus with peer institutions, selected by The Education Trust based on the following factors: 1) Percent Pell Recipients Among Freshman; 2) Percent Underrepresented Minority Students; 3) Estimated Median SAT/ACT; 4) Undergraduate FTE; 5) Sector (public/private); 6) Carnegie Classification; 7) Student Related Expenditures/total FTE.

The Education Trust compared the 6-year graduation rates of First-Time Freshmen (FTF) who started in 2000 (graduated in 2006). CSU Monterey Bay's rate was low compared to many of the comparative institutions (see chart below).

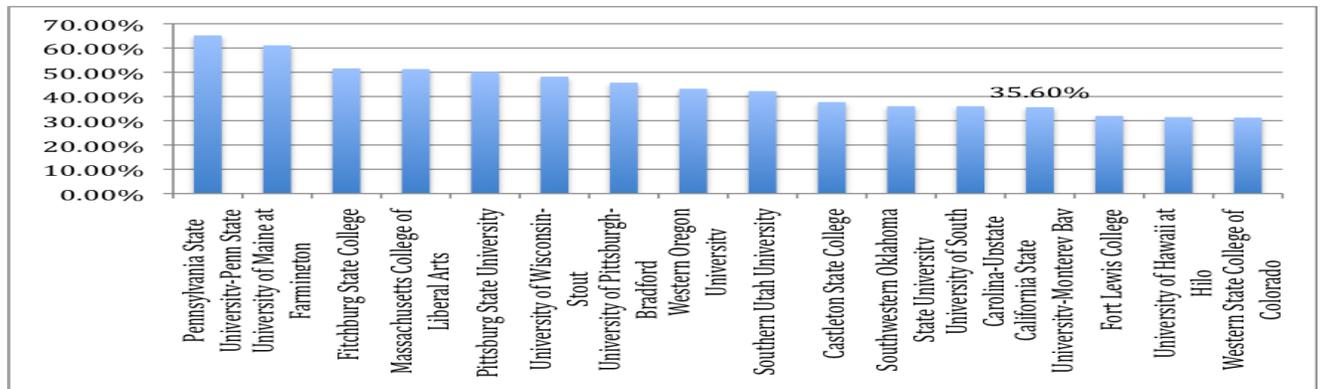**2006 6-Year Graduation Rate for FTF of CSUMB's Comparative Campuses**

Figure 5 (The Education Trust: http://www.collegeresults.org/search1b.aspx?institutionid=409698)

Based on The Education Trust's analysis, the CSU established different targets for each campus. CSUMB is to improve our FTF graduation rate by 14 percentage points by 2015. This target is one of the highest in the system, and is rather daunting. On the other hand, CSU Monterey Bay is one of only three campuses in the CSU with no achievement gap at all: our URM students graduate at the same rate as our non-URM students. Thus, although we have work to do regarding our graduation rate; we are clearly doing many things right vis-à-vis our graduation of URM students. The CSU as a whole, and most individual campuses, show an achievement gap between the graduation rates of URM vs. non-URM students, with URM students graduating at a lower rate in most cases. Of further interest, most of the 15 institutions chosen by The Education Trust for comparison with CSU Monterey Bay do not have very high percentages of URM students. CSU Monterey Bay has the highest percentage of the group, with 32.4 percent; only Fort Lewis College and the University of South Carolina-Upstate approach that percentage—all the other comparative institutions have less than 10 percent (The Education Trust, http://www.collegeresults.org/search1b.aspx?institutionid=409698) (CFRs 1.2, 2.10, 4.4, 4.5).

As a campus, we were already engaged in working to understand and improve our retention and graduation rates before the CSU Graduation Initiative came about. We were focusing significant attention on retention (as described earlier), and retention very clearly feeds into graduation rates. The Initiative gave added impetus to our ongoing work. President Harrison quickly formed a "Delivery Team" to spearhead this project. Led by the provost, this team includes the vice president of Student Affairs, the associate vice president for Academic Planning and Institutional Effectiveness, the associate vice president for Enrollment Services, the director of Institutional Research, the chair of the Academic Senate, the director of the Center for Student Success, and a representative from the Associated Students.

We submitted our campus Delivery Plan to the CSU Chancellor's Office in December 2009 (Appendix 12: CSUMB Campus Delivery Plan Final). As key elements of the plan we developed trajectories and timelines for benchmark activities and milestones. Improving retention is a key part of improving our graduation rate (CFRs 4.1, 4.4, 4.5, 4.6). If the students do not remain at CSU Monterey Bay, they cannot graduate. In order to increase the graduation rate for the 2009 entering class of FTF to the level we need to reach by 2015, we will have to improve retention rates significantly (Appendix 13: CSUMB FTF Trajectory).

Based on an analysis of our historic retention and graduation rates, we modeled trajectories for improving both retention rates and graduation rates in such a way that if we hit our targets along the way, we will reach our goal of increasing our 6-year graduation rate by 14 percentage points by 2015. We know that we lose students throughout their careers at CSU Monterey Bay, but the biggest loss is after the freshman year. Our 2009 freshman retention rate (students who started in Fall 2008 and returned in Fall 2009) was 71 percent, a 4 percent increase over the previous year's rate of 67 percent. Thus, we were already improving freshmen

retention, but need to continue to improve. Our Delivery Plan trajectory targeted an 8 percent increase in FTF retention from Fall 2009 to Fall 2010 (to 79 percent), a very ambitious goal. As seen in the table below, our model also requires that we significantly improve retention from sophomore to junior year, as well as junior to senior year.

CSU Monterey Bay yearly retention rates as originally modeled to meet target graduation rates

	# of students	% Goal	Historic Average
Started in Fall 2009 as FTF	949		
Returning as sophomores	750	79%	72%
Returning as juniors	617	65%	56%
Returning as seniors	568	60%	50%

As we monitor retention over the academic year, an important marker to track along the way is retention from the fall to spring semester. We have historic data for fall to spring retention for both freshmen and sophomore years. Although our fall to spring retention has been good in the past, we still need to improve this rate in order to retain more students through to the next academic year. Our first goal was to retain 92 percent of Fall 2009 FTF for Spring of 2010, an increase of 4 percent over the historic average of 88 percent (see table below).

Fall to spring retention rates as modeled to meet our target graduation rate

Fall-to-Spring Retention:	# of students	% Goal	Historic Average
Started in Fall 2009 as FTF	949		
Returning for spring of freshman year	873	92%	88%
Returning in Fall 2010 as Sophomores	750	79%	72%
Returning for spring of sophomore year	688	72%	64%

Because transfer students are important in the CSU, the Chancellor's Office asked for development of similar trajectories and goals for transfer students (Appendix 14: CSUMB Transfer Trajectory). A summary of these data are presented in the table below:

Yearly retention rates required to meet our Transfer target graduation rate

	# of students	% Returning	Historic Average
Started in Fall 2009 as FTT (First Time Transfers)	595		
Returning for 2nd year (Fall 2010)	470	79%	76%
Returning for 3rd year (Fall 2011)	336	57%	53%
Returning for 4th year (Fall 2012)	170	29%	25%

As we seek to increase fall to spring retention, an important marker is the number of students who register for the following semester before they leave for break. For spring semester, registration opens in November, but historically, many CSU Monterey Bay students have NOT registered until January. We have been trying to change this behavior, both for planning and budgeting purposes as well as retention purposes. In order to reach our goal of 92 percent of fall FTF returning for spring semester, we wanted to see at least 95 percent of our Fall 2009 FTF registered prior to winter break (902 students). We have not tracked this number systematically in the past, but began to track it for the Fall 2009 semester. Similarly, we want to see a high number of students register for Fall 2010 before they leave the campus for the summer at the end of the Spring 2010 semester.

We instituted a number of tactics to encourage early registration, including faculty announcements in classes, advisers contacting students, Associated Students communicating with students, Residence Life getting the word out in the residence halls, emails sent directly to students through our Hobson's Retain messaging system, and the Student Success Center/University Advising Center calling students who had not yet registered.

Our results have been positive. We have significantly improved our pre-registration rates, both in the fall for spring semester, and in the spring for the following fall. We met our target for fall to spring retention for FTF (92 percent) and exceeded the target for transfers (our goal was 89 percent; our actual retention was 92 percent). For Fall 2010, we exceeded our retention target for transfer students with a retention rate of 82 percent. For FTF we increased our retention rate to 76 percent; slightly below our ambitious goal of 79 percent, but still a significant increase over the 71 percent rate in Fall 2009.

An important part of the "Delivery Plan" method is continual monitoring and reporting of progress, in order to keep the work front and center. To this end, throughout the Spring of 2010, each campus submitted required monthly reports to the CSU Chancellor's Office; the reporting cycle has since changed to bi-monthly reports. On campus, we post the written materials for this project (including the monthly reports) on the Academic Affairs website (http://academicaffairs.csumb.edu). The provost gives a progress report on this initiative at each Academic Senate meeting as well as at Cabinet meetings. Clearly, we are actively engaged as a campus, as required in the commission action letter, in the improvement of retention and graduation rates. This work is high priority for our campus; we are intensely focused on it, and achieving positive results.

C. Maintaining Momentum, Staging Progress, and Committing Resources

During our initial accreditation, our brand new campus could be easily likened to getting an unwieldy, experimental aircraft off the ground; the times were exciting, arduous, crazed, and our meaningful relationships with students and their successful movement through the ranks of our degree programs made up for the lack of coordination across campus. The original visiting team gave the campus a standing ovation and a long list of recommendations which were extraordinarily helpful in terms of shaping CSUMB's self-inquiry as we prepared for reaccreditation five years later.

During the intervening years, the campus attained flight speed, but many of our assumptions were challenged. Neither the first visiting team nor anyone on campus anticipated that retaining students to graduation would become such a trial for CSUMB. "If we build it, they will come" and "what we offer is so obviously valuable…why would students consider leaving?" were a few of the campus' deeply held assumptions. We ultimately had to replace assumptions with data-informed study, and came to realize that many students left us before graduating. Our retention analysis revealed no "smoking gun," no single reason for such high attrition (CFRs 4.1, 4.5). Our challenge to connect students deeply to CSUMB was spread generally across our student demographic. We understood this to mean that the reasons students leave are

broad and that students are responding to problems that affect the student body in general. Thus, we have responded broadly and deeply as we sought to listen to data from many different sources. What began as deep skepticism regarding why we lose so many of our students has given way to a strong sense of needing to understand our challenges and a willingness to change (CFRs 4.5, 4.6, 4.7).

The recent commission action letter and team report appropriately call our attention to focus on increasing student retention and graduation rates, and to strengthening feedback loops; indeed data-informed study of student retention, strengthening feedback loops (such that we study the efficacy of our practices and use what we learn to improve), and assessment of student learning have been the primary foci of this accreditation cycle (CFR 1.9). We have harnessed the whole of this cycle to ask deep and probing questions regarding what is and is not working at CSUMB. We have used what we have learned to make substantive, data- and experience-informed changes. From the retention analysis, to the Alumni and Student Experience Surveys and Capstone Study, from the overhauls of the GE system, First Year Seminar, and Academic Advising, to the changes in faculty governance and formation of a Academic Senate curriculum committee, the campus has used inquiry, analysis, and reflection (frequently having to make meaning of data that were provocative and emotionally challenging), to effect change that will serve our students and CSUMB in the near and long term.

These valuable results of this accreditation cycle are tightly connected to our strategic and academic plans. As depicted below in Figure 6, we have established regularized processes for planning, evaluation, and continuous improvement which align institutional resources with educational objectives. Examples of this include the three year planning horizon for the university's strategic plan in which each division updates its plan in the fall so that institutional planning is always rolling forward. The Strategic Planning Coordinating Council reports progress on the strategic plan twice a year to the President's Cabinet. The three-year planning horizon is aligned with the budget development process and this enables an examination of how to align institutional resources with institutional priorities.

CSU MONTEREY BAY
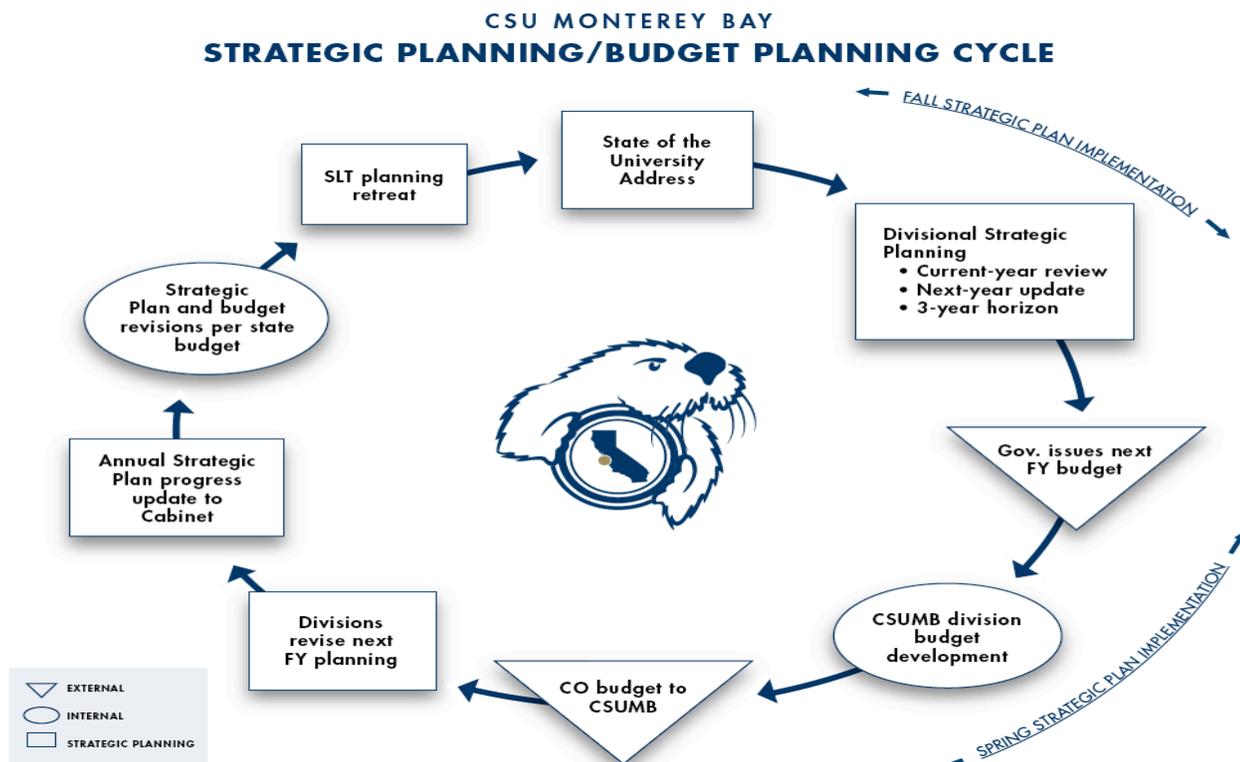**STRATEGIC PLANNING/BUDGET PLANNING CYCLE**

Figure 6

Our strategic plan spans 2008-2018. It is focused on four overarching major goals and our planning and resource allocation takes place with respect to these goals (see sidebar). Similarly, the Academic Plan (2008-2013) demonstrates an internal alignment of its resources in assessment, faculty development, program review and services review, academic advising, academic planning, academic computing, enrollment services, and academic support to accomplish our educational objectives. The alignment of annual assessment plans, and assessment of student learning in program review, with the resources from the Center for Teaching, Learning, and Assessment, is an example of aligning efforts to establish infrastructure in order to sustain assessment and continuous improvement over time. This is hinged to the regularizing of processes such as annual plans, published review cycles (Appendices 18, 19), professional staff support, and professional development. We use the remainder of this section to describe how we align resource allocation, regularize planning, and review processes to support the important themes and next research projects emerging from this accreditation cycle.

One such research project is our future investment in developing a shared understanding of rigor, the need for which has arisen during this accreditation cycle. Questions regarding rigor have emerged on our campus from many quarters. It arose during our first accreditation experience, and again as we engaged the campus in preparation of our institutional proposal five years ago. Rigor comes through in the written comments in the CSUMB Alumni Survey, the Capstone Study, Student Experience Survey, and our work on FYS as well. During the development of our institutional proposal, rigor was one of the concerns under discussion, but the other issues took precedence. We still consider the question of rigor to be extremely important. During the past several years, our formal study of what academic rigor means at CSUMB has largely been trumped by more pressing issues, namely the need to increase student retention and graduation rates. However, as we move from what has been a very intense inquiry driven portion of our self-study, into the phase of meaning-making and deep reflection, of planning the next steps, rigor emerges as the next new substantial project for CSUMB (CFRs 1.2, 1.7, 3.8, 3.11, 4.1).

The Dean of the College of Arts, Humanities, and Social Sciences has agreed to lead a campus-wide group charged with developing a literature-based, campus-wide, discussion of "rigor." This work will be multifaceted and long-term, and the planning for it is expressed in the Academic Plan, 2008-2013 (Appendix 15: Academic Plan). It will begin in Spring 2011 with department-based discussions on "what is rigor in our field?" These discussions/exercises will engage faculty in relevant literature, and in elucidating rigor in their various disciplines and describing what it looks like, and how we know it when we see it. The department and disciplinary threads will be brought together so that the natural and social scientists, as well as the artists and the humanists can assemble both the commonalities and differences among and between what each means by "rigor." From there, this work will be deepened by asking departments to use what they have learned from both local and campus-wide conversations, and to incorporate this learning into their annual assessment plans, to describe how they will use this in the development of their curricula, pedagogy, and assessment (CFRs 2.1, 2.2, 2.4). We expect the work to be greeted with enthusiasm by faculty who have wanted to address this concern on our campus.

There is a wonderful synergy between developing our understanding of rigor and using the findings of the capstone research. In a campus-wide workshop (August 2010) on how to advance the findings of the Capstone Study, conversations focused on how to better resource capstone. Participants came together on the concept that one of the greatest resources to improve student

Four Major Goals of Our Strategic Plan

- Increase Student Success

- Continue to Develop as a Comprehensive University

- Increase Institutional Capacity

- Attract, Retain, and Develop Faculty, Staff, and Administrators

performance in their capstones is what students learn during the preceding 3-4 years. Thus, one of the most effective investments the campus can make regarding capstone is to develop excellent scaffolding throughout the curriculum for the skills and abilities students need to conduct their capstones. As we develop our work on rigor, it is clear that we will need to understand that the components of rigor are supported and developed from the 100 through the 400 course levels.

We have concluded the Alumni Survey and Capstone Study (Theme Two and Theme Three), Educational Effectiveness research we embarked upon in the institutional proposal, and the results have been fruitful. Results of the Alumni Survey have informed significant changes across campus and will influence campus-wide discussions in coming years. Results from the Capstone Study will be far-reaching as the campus grapples with issues of coherence, quality, rigor, scaffolding skills and knowledge up through the curricula, and sustainability of capstone in the years ahead. As a direct response to the Educational Effectiveness research, CTLA has initiated in 2010-2011 a faculty cooperative to explore the results of the Capstone Study, studying modified capstone models, sustainability and faculty workload. In addition, the faculty who led this research are conducting two research projects catalyzed by the Capstone Study with financial support from their deans. The School of Business has engaged in a two-semester pilot capstone. Human Communication is using a pre-capstone course to study faculty and student expectations of learning in different capstone models (here and at other institutions) and will use its findings to develop a one-semester seminar-style model.

We have staged the implementation of our new advising model (Theme One) with a pilot study in Psychology, Teledramatic Arts & Technology, and Business Administration. We have instituted training for advisers in 2010-2011, and are developing and implementing new tools to assess the consistency and accuracy of guidance given by advisers. We have slated campus-wide implementation of the new advising model for 2011-2012 with assessment of its effectiveness scheduled to follow. We are eager for these upcoming steps and for students to have improved experiences of advising.

Resources committed to improvements in advising to date include extended service hours, hiring a director and additional staff, training and professional development of advisers, and implementation of a pilot study in 2010-2011 with three very different programs. The direct commitment of the president and provost to the success of this project, and the university's commitment to it in the strategic plan give us confidence that the necessary resources needed as the project unfolds will be allocated.

Across the campus, faculty are excitedly involved in and implementing the new general education model; the steps needed to fully implement the model have been identified and shared widely across campus, and work is underway in many groups. Resources committed to this important work have been tremendous over the past two years, and in 2010-2011 will include special consulting days for faculty to develop learning outcomes in Fall 2010, and for conducting course certification processes in the summer of 2011. In 2012-2013 the work will shift dramatically to advisers and graduation evaluators who will be helping students complete degrees with the prior system and develop learning plans with the new system. We anticipate several years of intense advising with overlapping GE systems while continuing students complete their degrees, and we are addressing this in our plans (CFRs 1.7, 2.2, 2.3, 4.2).

With respect to assessment of student learning as well as the efficacy of academic programs and services, we have regularized and institutionalized our systems of quality assurance. Assessment of GE learning outcomes and attention to feedback loops will continue to provide valuable feedback for student performance, curricular change, and improvement to teaching and learning activities. Assessment of ULR learning outcomes takes place every other year, and as we transition from the ULR System into the Otter Model, biannual assessment of GE learning outcomes will continue similarly; faculty learning communities will use assessment results to improve instruction, increase learning, and continue the cycle. Assessment of student learning in the majors is now layered through academic program review (Appendix 16: Academic Program

Review Schedule), program improvement plans, and annual assessment plans. Through these processes, the assessment of student learning is becoming a routine, normal, integral part of CSUMB (CFRs 2.1, 2.4, 2.5, 2.6).

Assessment of co-curricular student learning is underway. We have established an infrastructure that draws together institutional data and assessment and many departments are developing and implementing annual plans that roll out the assessment of student learning outcomes in co-curricular programs and services. We have established the Academic and Administrative Services Review process, and published its review schedule (Appendix 17: Academic Administrative Review Schedule), and attained valuable information as a feedback loop for continuous improvement which focuses on services and non-degree programs (CFR 2.11).

Meaningful assessment is a time- and labor-intensive process. Resources focused on assessment of student learning are many and include faculty development through CTLA in faculty teaching co-ops and workshops, support of program review and annual assessment plans, and faculty teams participating in WASC and AAC&U conferences. It includes professional development of staff in student affairs and enrollment services. CSUMB has also dedicated two faculty contract days per academic year to assessment of student learning and special consulting days for GE assessment during the summer. Departments have learned that it takes time to develop and test a rubric, and to revise it so that it is most useful to assess student learning.

Our primary educational objectives are to produce high quality learning via high quality instruction and to increase student success, retention, and graduation. As a learning institution, we approach these objectives asking "how do we know?," "what kinds of data will inform how well we are actually doing, and in what ways do we need to change?" To some degree the need for change has trumped and dwarfed the original research laid out in our institutional proposal; we have chosen to move forward in areas where the need and challenge was greatest and most prescient. Thus, as this accreditation cycle ends, we find ourselves in a period of substantial change, and monumental opportunity. With GE reform, new models for FYS and Academic Advising, and changes to faculty governance, we have set in motion works for which the dust will not soon settle. We are obliged and excited to see these changes through, to steward them so that they actualize their potential to genuinely serve student success and increase student retention and graduation rates. We have invested enormously in these works and are fully aware of the need for continued investment. Our investment is strongly supported by the president and senior leadership team, the cabinet, faculty and staff, and student leaders.